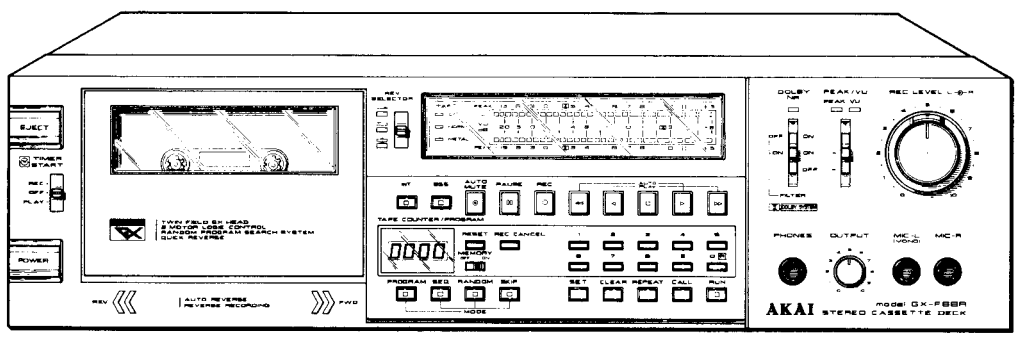
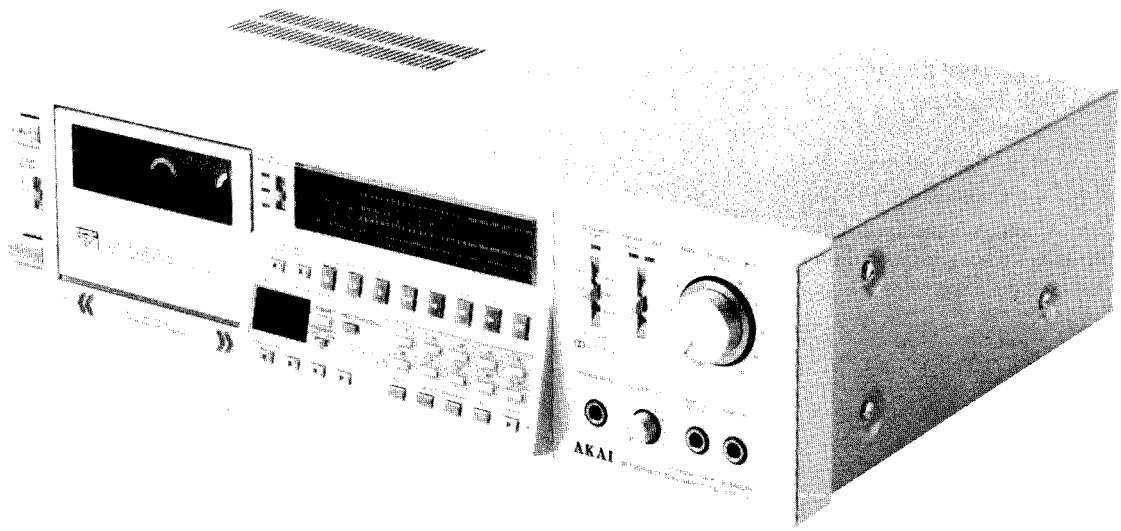
AKAI SERVICE MANUAL



GX-F66R

STEREO CASSETTE DECK

MODEL GX-F66R



STEREO CASSETTE DECK

MODEL GX-F66R

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SECTION 3 SCHEMATIC DIAGRAM 00

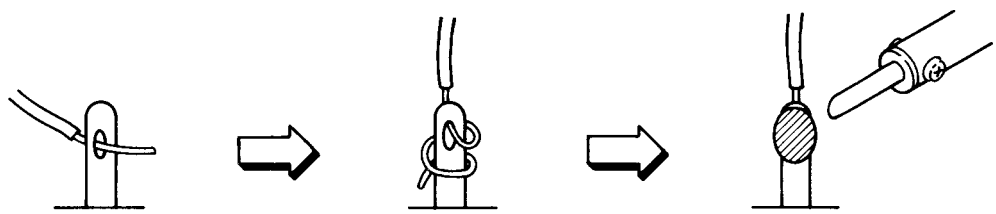
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

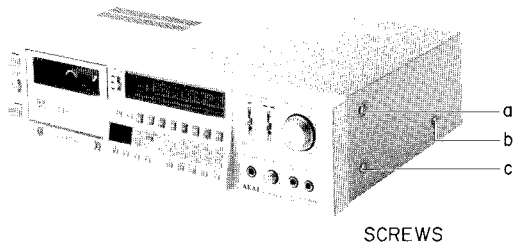
TRACK SYSTEM	4 Track 2 Channel Stereo System
TAPE	Philips Type Cassette
TAPE SPEED	4.76 cm/s ± 1.5% (1-7/8 ips. ± 1.5%)
HEADS	Twin Field Super GX head for Recording/Playback × 1 Erase head × 2
MOTORS	Electronically speed controlled DC motor for capstan drive × 1 DC motor for reel drive × 1
WOW & FLUTTER	Less than 0.035% WRMS, 0.11% (DIN 45500)
TAPE WINDING TIME	80 sec. using a C-60 cassette tape
FREQUENCY RESPONSE	Normal: 25 to 16,000 Hz ± 3 dB (–20 VU) CrO_2: 25 to 17,000 Hz ± 3 dB (–20 VU) 25 to 9,000 Hz ± 3 dB (0 VU) Metal: 25 to 19,000 Hz ± 3 dB (–20 VU) 25 to 13,000 Hz ± 3 dB (0 VU)
SIGNAL TO NOISE RATIO	Normal: Better than 58 dB CrO_2: Better than 60 dB Metal: Better than 60 dB (measured via tape with peak recording level) Dolby NR switch ON: Improves up to 10 dB above 5 kHz
HARMONIC DISTORTION	Normal: Less than 0.8% CrO_2: Less than 0.7% Metal: Less than 0.7%
INPUT	MIC: 0.25 mV (input impedance 5.0 kohms) Required microphone impedance: 600 ohms Line: 70 mV (input impedance 47 kohms)
OUTPUT	Line: 410 mV at 0 VU Required load impedance: more than 20 kohms Phone: 1.3 mV/8 ohms at 0 VU
DIN	Input: 2.0 mV (input impedance 10 kohms) Output: 410 mV Required load impedance: more than 20 kohms
POWER REQUIREMENTS	100V, 50/60 Hz for Japan 120V, 60 Hz for USA and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110V/120V/220V/240V, 50/60 Hz switchable for other countries.
DIMENSIONS	440 (W) × 118 (H) × 309 (D) mm (17.3 × 4.6 × 12.2")
WEIGHT	8.6 kg (19.0 lbs)

*** For improvement purposes, specifications and design are subjet to change without notice.**
*** "Dolby" and the Double D symbol are trademarks of Dolby Laboratories. (Manufactured under license from Dolby Lavoratories.)**

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs.
Reassemble in reverse order.

1



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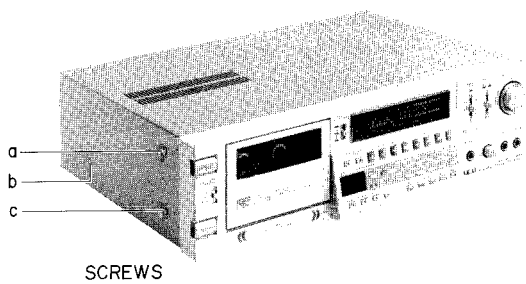

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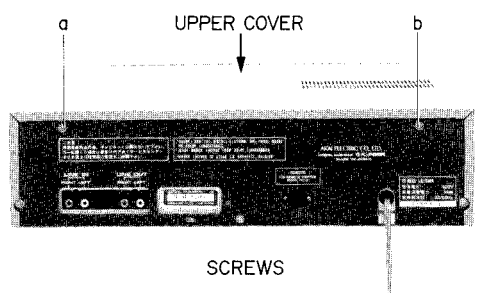

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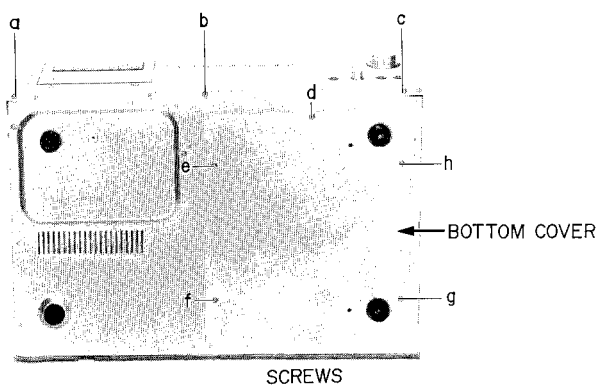

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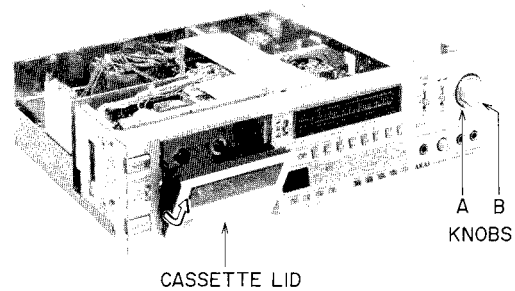

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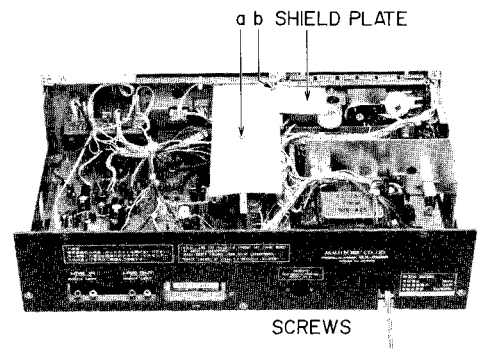

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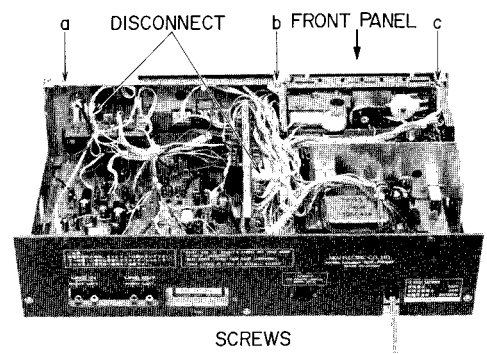

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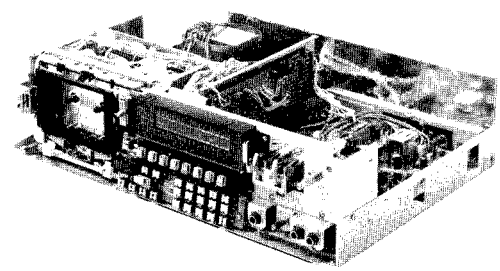


III. CONTROLS

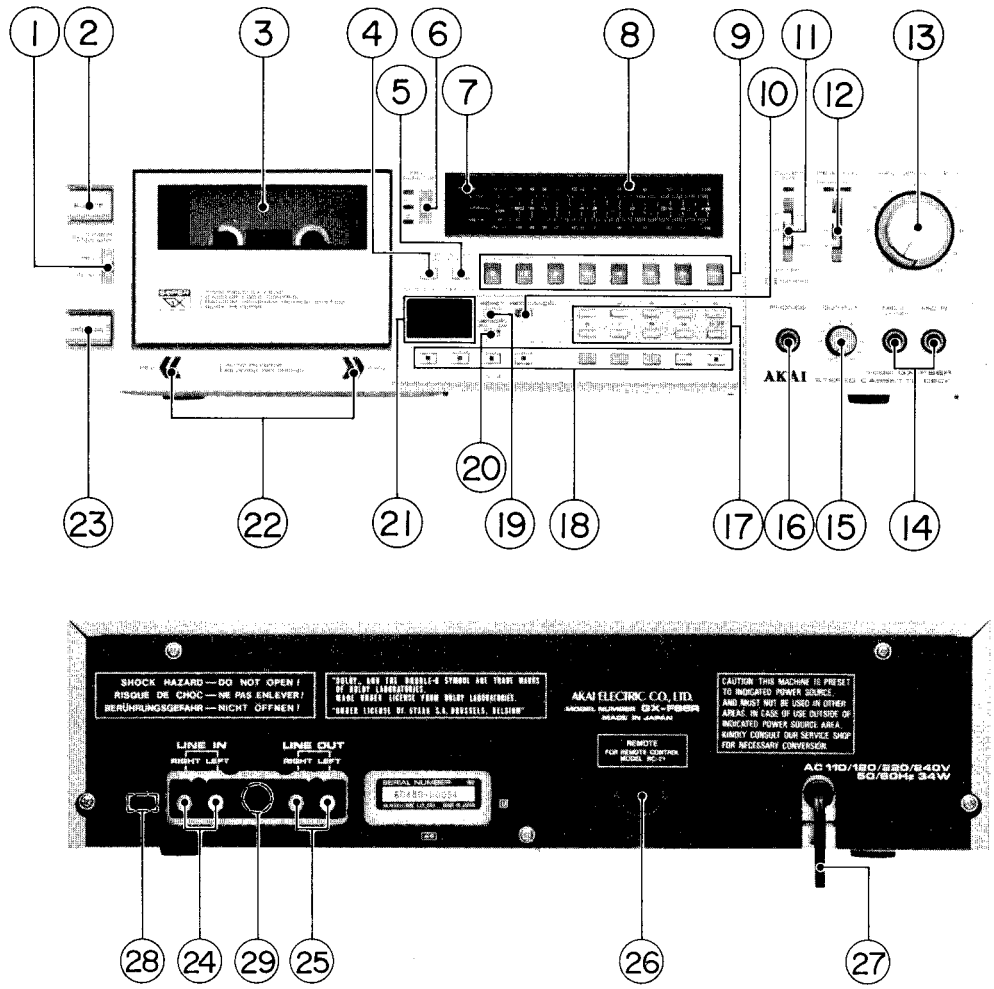


Fig. 1 Controls

1. TIMER START SELECTOR
2. EJECT BUTTON
3. CASSETTE RECEPTACLE
4. INTRO SCAN BUTTON
5. BLANK SEARCH BUTTON
6. REVERSE (REV) SELECTOR
7. TAPE INDICATOR
8. LED BAR METER WITH MAXIMUM HOLD
9. OPERATING BUTTONS
   AUTO MUTE (○) BUTTON
   PAUSE (▮▮) BUTTON
   RECORDING [REC (●)] BUTTON
   REWIND (◀◀) BUTTON
   REVERSE (◀) BUTTON
   STOP (■) BUTTON
   FORWARD (▶) BUTTON
   FAST FORWARD (▶▶) BUTTON
10. RECORDING (REC) CANCEL BUTTON
11. DOLBY NR AND FILTER SWITCH WITH INDICATOR
12. PEAK/VU SELECTOR WITH INDICATORS
13. LEFT —◉— RIGHT RECORDING LEVEL CONTROLS (REC LEVEL L—◉—R)
14. MICROPHONE (MIC-L: left, MIC-R: right) JACKS
15. OUTPUT CONTROL
16. HEADPHONE (PHONES) JACK
17. PROGRAMMING KEYS (1 to 0 R)
18. RANDOM PROGRAM SEARCH SYSTEM (RPSS) KEYS
    PROGRAM KEY
    SEQUENCE (SEQ) KEY
    RANDOM KEY
    SKIP KEY
    SET KEY
    CLEAR KEY
    REPEAT KEY
    CALL KEY
    RUN KEY
19. MEMORY SWITCH
20. RESET BUTTON
21. TAPE COUNTER/PROGRAM DISPLAY
22. DIRECTION INDICATORS
23. POWER SWITCH
24. LINE IN JACKS (RIGHT AND LEFT)
25. LINE OUT JACKS (RIGHT AND LEFT)
26. REMOTE CONTROL JACK
27. POWER CORD
    (Some models are equipped with an AC Inlet instead. Connect with the connection cord supplied.)
28. LINE/DIN SELECTOR
    (Some models do not have this facility.)
29. DIN JACK
    (Some models do not have this facility.)

IV PRINCIPAL PARTS LOCATION

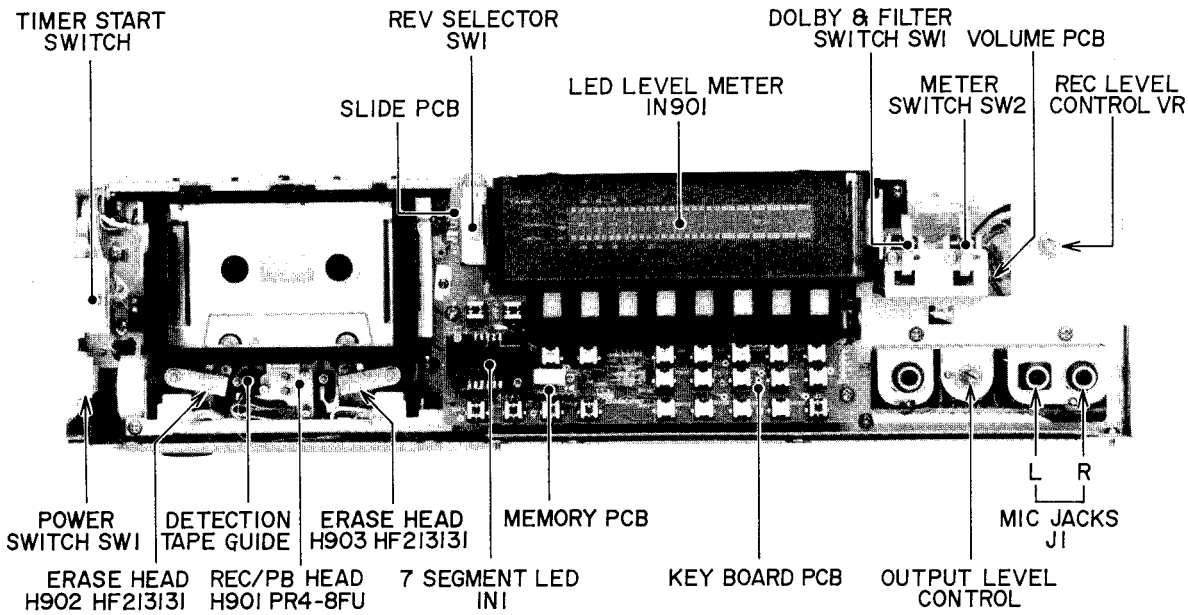


Fig. 2 Front View

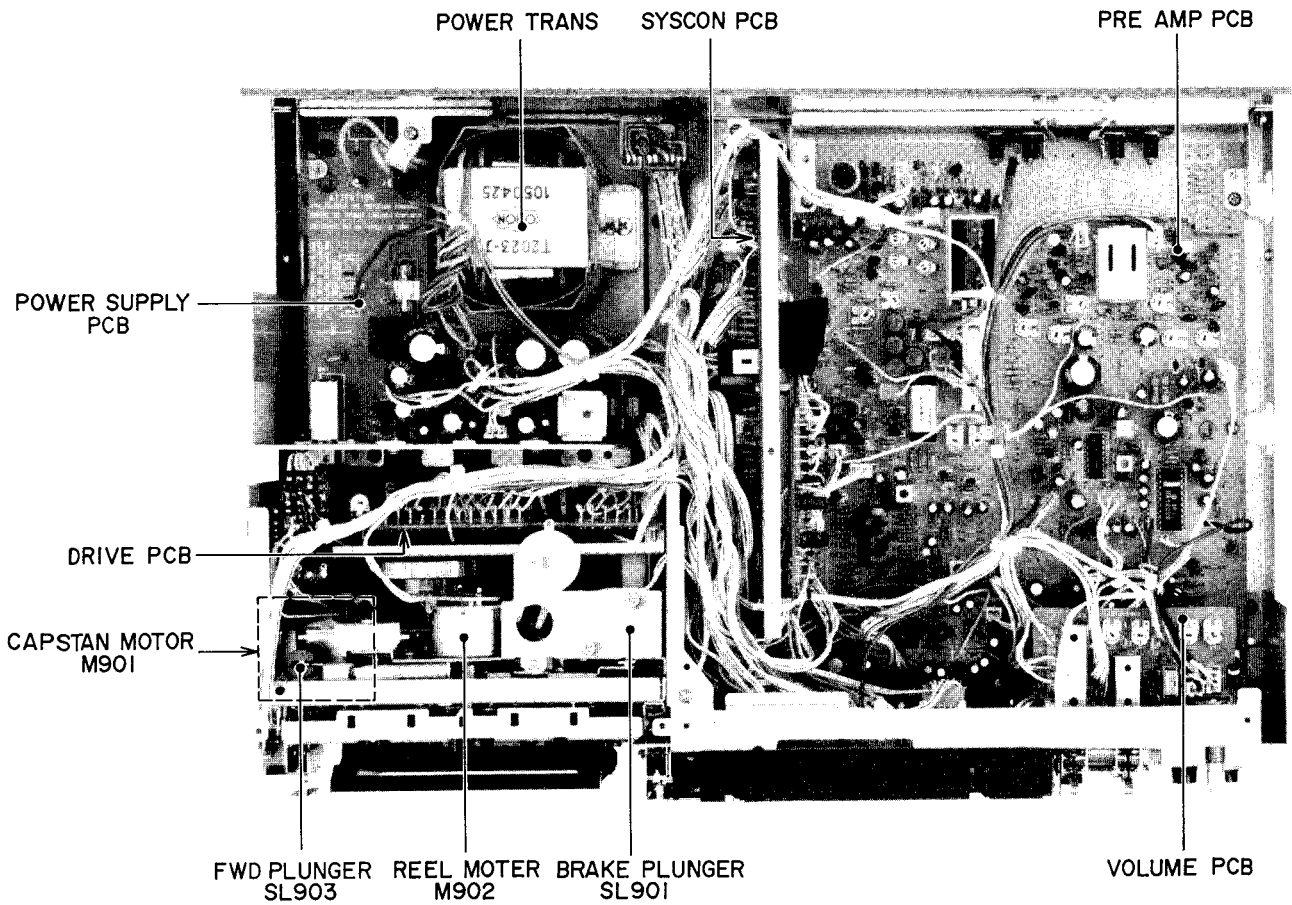


Fig. 3 Top View

V. VOLTAGE AND CYCLE CONVERSION

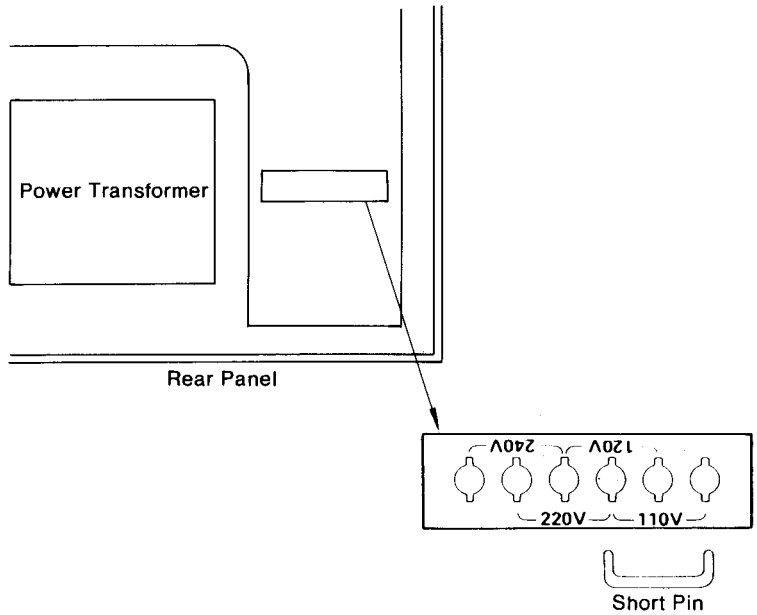


Fig. 4 Voltage Conversion (U/T Model only)

1. VOLTAGE CONVERSION

Models for Canada, Europe, USA, UK, Australia and Japan are not equipped with this facility.

Each machine is preset at the factory according to destination, but some machines can be set to 110V, 120V, 220V or 240V as required.

If voltage change is necessary, this can be accomplished as follows:

1) Disconnect power cord.
2) Loosen holding screws and remove upper cover.
3) Remove short pin plug from present holes and replace in correct holes.
   Follow the markings explicitly.

2. CYCLE CONVERSION

With DC motor, cycle conversion is not necessary.

VI. SYSCON BLOCK DIAGRAM

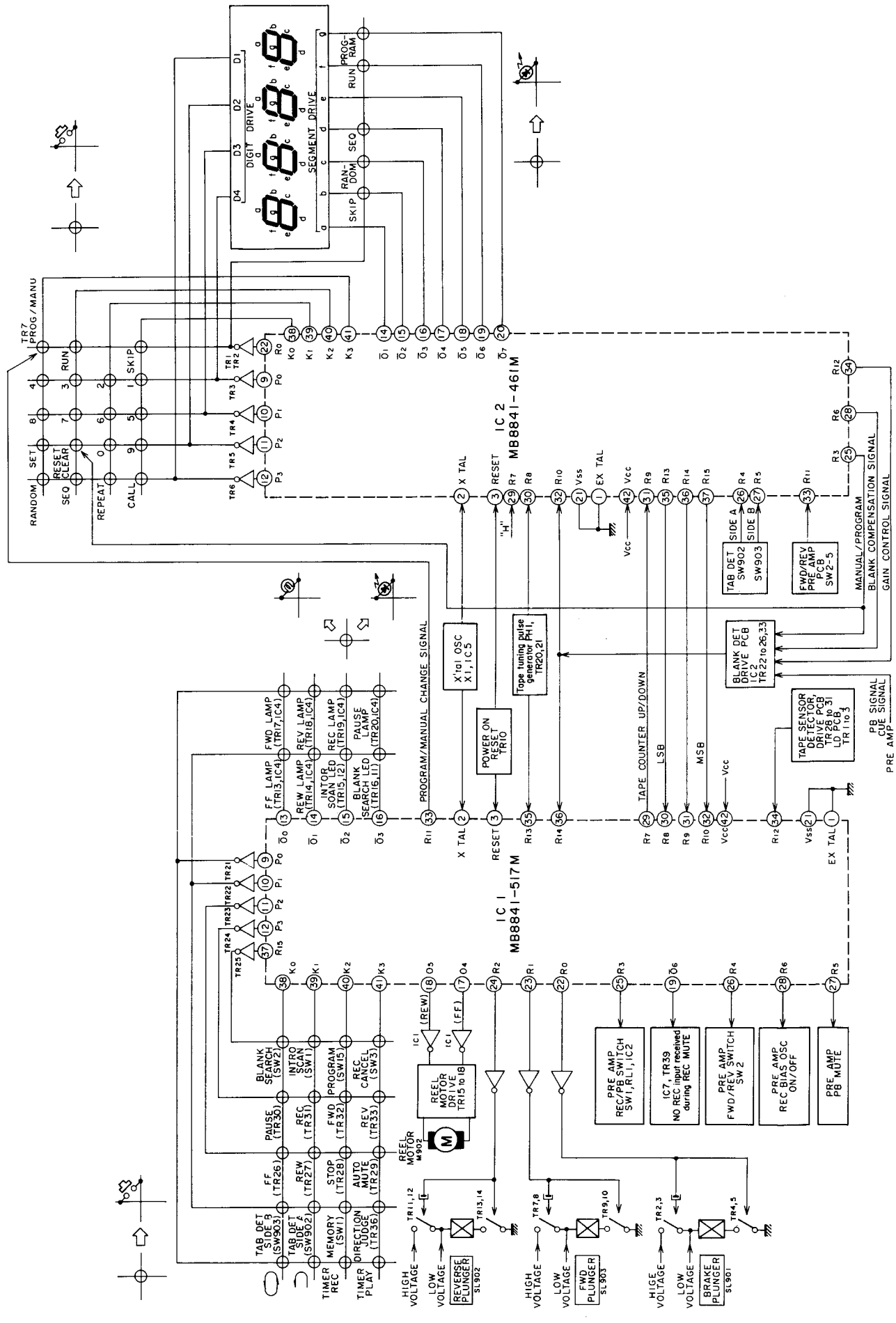
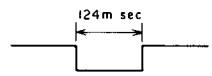
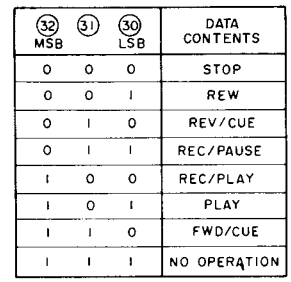
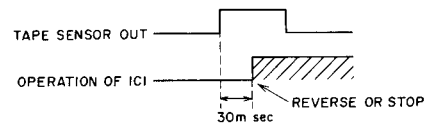
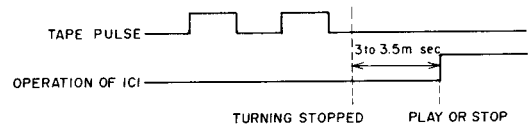


Fig. 5

VII. FUNCTION OF MICROCOMPUTER TERMINALS

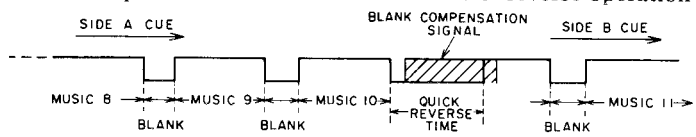
1. IC1 (Microcomputer for SYSCON)

TERMINAL NO.	FUNCTION
9 10	OPERATION KEY MATRIX STROBE, LAMP, LED DRIVE
11 12 37	OPERATION KEY MATRIX STROBE
38 39 40 41	OPERATION KEY MATRIX IN
13 14 15 16	LAMP, LED DRIVE
17	REEL MOTOR DIRVE FF, FWD CUE : "L" OTHER MODE : "H"
18	REEL MOTOR DRIVE REW, REV CUE : "L" OTHER MODE : "H"
22	BRAKE PLUNGER DRIVE "L" except in STOP, PAUSE and CUE modes
23	FWD PLUNGER DRIVE FWD, REC/FWD, FWD/PAUSE, REC/FWD/PAUSE, FWD CUE : "L" OTHER MODE : "H"
24	REV PLUNGER DRIVE REV, REC/REV, REV/PAUSE, REC/REV/PAUSE, REV, CUE : "L" OTHER MODE : "H"
25	PRE AMP REC/PB CHANGE SWITCH DRIVE REC/FWD, REC/REV, REC/PAUSE : "L" OTHER MODE : "H"
26	PRE AMP FWD/REV CHANGE SWITCH DRIVE FWD, REC/FWD, FWD/PAUSE, REC/FWD/PAUSE : "H" REV, REC/REV, REV/PAUSE, REC/REV/PAUSE : "L" In other modes, the previous status is retained.
27	PRE AMP PB MUTE FWD, REV, REC/FWD, REC/REV, REC/PAUSE : "L" OTHER MODE : "H"
28	PRE AMP REC BIAS OSC ON/OFF REC/FWD, REC/REV, REC/PAUSE : "L" OTHER MODE : "H" But "H" at the time of STOP→REC/PAUSE mode and "L" when REC/PAUSE is changed to RED/FWD or REV.
29	Tape Counter UP/DOWN indication FWD, REC/FWD, FF : "L" (UP COUNT) REV, REC/REV, REW : "H" (DOWN COUNT)
33	PROGRAM/MANUAL CHANGE SIGNAL (TO IC2) When PROGRAM KEY is pressed from STOP or PAUSE mode or when OPERATION KEY is pressed from PROGRAM mode : "L" for 124 msec.  Fig. 6
19	REC MUTE AUTO MUTE MODE : "L" OTHER MODE : "H"

TERMINAL NO.	FUNCTION
30 31 32	1. During MANUAL OPERATION, it will be input terminal for the TAPE COUNTER "0000". When the TAPE COUNTER is "0000", "L" input is put in 30 – 32 for 40 msec. (TO IC2) 2. During PROGRAM OPERATION, the following data are added from IC2. Data contents.  Fig. 7
34	TAPE SENSOR INPUT  Fig. 8
35	Tape turning pulse input (from tape turning pulse generator)  Fig. 9
36	Audio signal input terminal (from BLANK DET.) "H" input in music and "L" input in blank.

(32) MSB	(31)	(30) LSB	DATA CONTENTS
0	0	0	STOP
0	0	1	REW
0	1	0	REV/CUE
0	1	1	REC/PAUSE
1	0	0	REC/PLAY
1	0	1	PLAY
1	1	0	FWD/CUE
1	1	1	NO OPERATION

2. IC2 (Microcomputer for RPSS)

TERMINAL NO.	FUNCTION
9 10 11 12	PROGRAM KEY MATRIX STROBE, 7 Segment LED Digit Drive
22	PROGRAM KEY MATRIX STROBE, LED Drive
25	MODE Output "H" = MANUAL Mode "L" = PROGRAM Mode 1. For switching of "0000" RESET of the tape counter and Program Contents Clearing. 2. For ON/OFF of the blank compensation signal.
26	SIDE A Detection of accidental erasing protector tab
27	SIDE B Detection of accidental erasing protector tab
28	BLANK COMPENSATION SIGNAL When quick reversed (in searching a music) in CUE mode, "H" is output to the BLANK DET. This is to prevent the detection of the time of reverse operation as a blank.  Fig. 10
29	Selection of One Way/Auto Reverse. "L"=One Way, "H"=Auto Reverse. Always "H" is added.
30	Tape turning pulse input (from tape turning pulse generator)
31	Tape Counter UP count/DOWN count indication. (from IC1)
32	AUDIO signal input terminal (from BLANK DET.) "H" input in music and "L" input in blank.
33	FWD/REV mode input. "H" input in FWD mode and "L" input in REV mode.
34	Threshold control of BLANK DET. Outputs "H" during CUE, reduces the input level of BLANK DETECTOR AMP and prevents saturation.
35 36 37	Actuating signal to IC1 (signal to actuate SYSCON) * See the functions of ㉚ – ㉜ of IC1
38 39 40 41	PROGRAM KEY MATRIX IN
14 15 16 17 18 19 20	7 Segment LED Segment Drive (a) 7 Segment LED Segment Drive (b) Operation indicator (SKIP) 7 Segment LED Segment Drive (c) Operation indicator (RANDOM) 7 Segment LED Segment Drive (d) Operation indicator (SEQ) 7 Segment LED Segment Drive (e) 7 Segment LED Segment Drive (f) Operation indicator (RUN) 7 Segment LED Segment Drive (g) Operation indicator (PROGRAM)

VIII. EXPLANATION OF AUTO SYSTEM OPERATION

This unit uses both SYSCON microcomputer (IC1) and RPSS (Random Program Search System) microcomputer (IC2) to provide various functions.
In addition to such functions as AUTO STOP, AUTO PLAY, MEMORY STOP, MEMORY PLAY and AUTO MUTE, it has the following functions.

1. BLANK SEARCH SYSTEM
(Operated by IC1 program)

When the unrecorded balance of the partically recorded tape is used, it automatically searches the unrecorded portion.

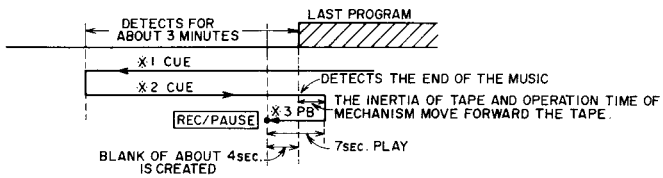

DETECTS FOR ABOUT 3 MINUTES
LAST PROGRAM
※1 CUE
※2 CUE
DETECTS THE END OF THE MUSIC
※3 PB
THE INERTIA OF TAPE AND OPERATION TIME OF MECHANISM MOVE FORWARD THE TAPE.
REC/PAUSE
7SEC. PLAY
BLANK OF ABOUT 4SEC. IS CREATED

Fig. 11 Blank Search System

1) The BLANK SEARCH KEY is not accepted when in PROGRAM mode, during INTRO SCAN operation or during AUTO MUTE operation.
2) When the BLANK SEARCH KEY is pressed, CUE is started in the direction indicated by the DIRECTION LAMP.
   When FWD LAMP is on : FF CUE
   When REV LAMP is on : REW CUE
   During CUE, no signal is issued from LINE OUT.
3) When the tape end of B side is reached during the execution of *1, transfer is made to the operation of *2 even if the BLANK does not reach the prescribed time. The prescribed time is the time needed by FF CUE or REW CUE to cover the distance equivalent to 3 minutes in PLAY mode at around the center of a 60 minute tape. The present time is set at 7.9 sec.
4) When the tape start end of A side is reached during the execution of *2 (in the case of a virgin tape), transfer is made to the operation of *3 even if there is no playback signal.
5) Reason for 7 sec. playback (*3)
   Because transfer is made to PLAY after the end of the music is detected, an intrusion is made into the music due to the inertia of the tape and operation time of the mechanism. Therefore, the 7 sec. PLAY allows the tape to run completely to the end of the music and at the same time makes a blank of 4 sec.
6) The BLANK SEARCH SYSTEM operates ONE CYCLE REVERSE (regardless of the reverse selector).

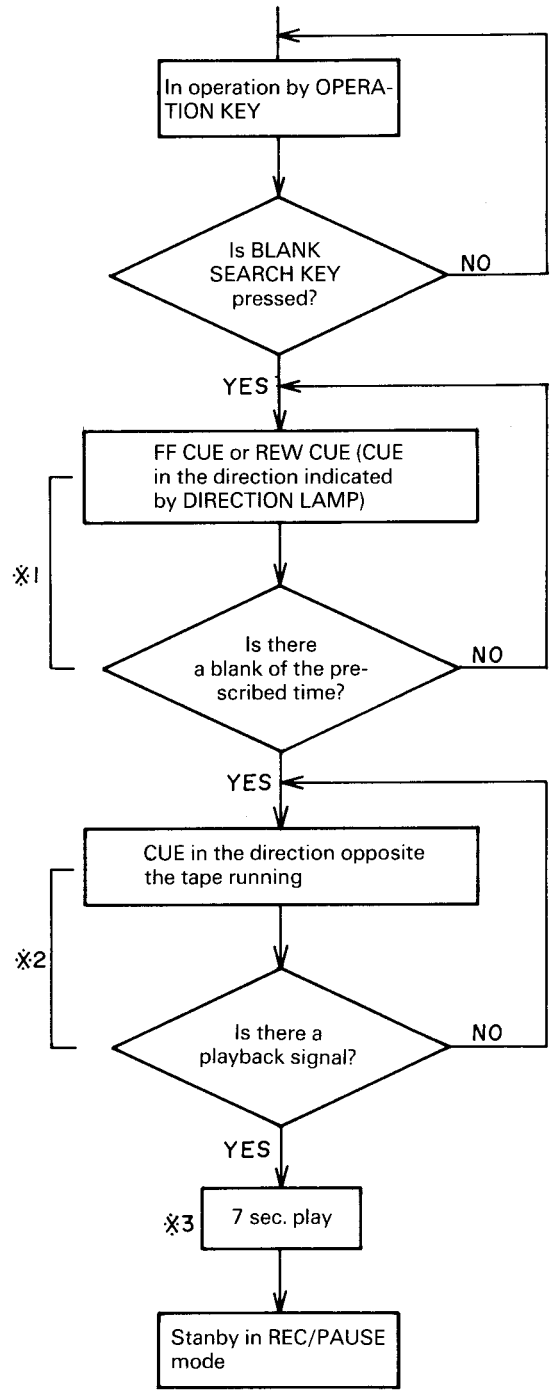


Fig. 12 Blank Search System

2. INTRO SCAN SYSTEM
(Operated by IC1 program)

* During CUE, no signal is issued from LINE OUT

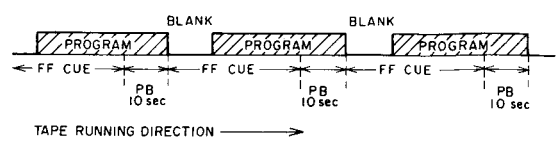


Fig. 13 Intro Scan System

It is used to find out what kind of music is recorded in a tape, and it reproduces the beginning of each program recorded in succession for 10 seconds each.

1) INTRO SCAN KEY is not accepted when in PROGRAM mode, during BLANK SEARCH operation or during AUTO MUTE operation.
2) When INTRO SCAN KEY is pressed, CUE is started in the direction indicated by the DIRECTION LAMP. While searching the program (FF CUE or REW CUE), it reproduces only the beginning in succession for 10 seconds each.
3) Since the recorded program is detected at the leading edge of the CUE signal, a small part of the beginning of the program is not reproduced.
   This detecting method is used because this system is only for the purpose of searching the music. (Fig. 15)

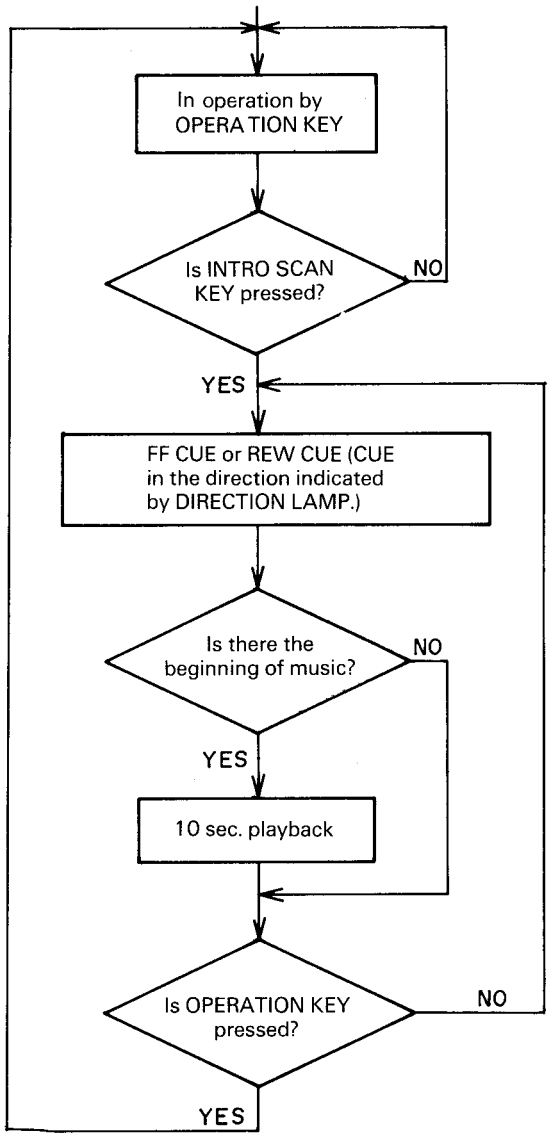


Fig. 14 Intro Scan System

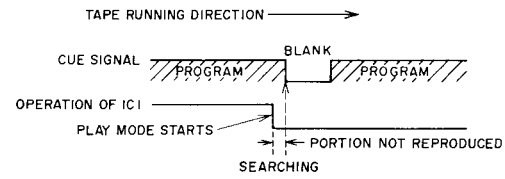


Fig. 15

4) INTRO SCAN operation is a continuous reverse operation regardless of the reverse selector. When the OPERATION KEY is pressed, it is released.

3. RECORDING CANCEL SYSTEM (Operated by IC1 program)

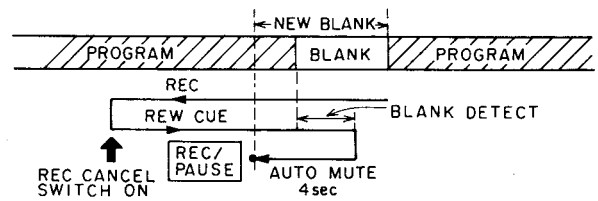


Fig. 16 REC Cancel System

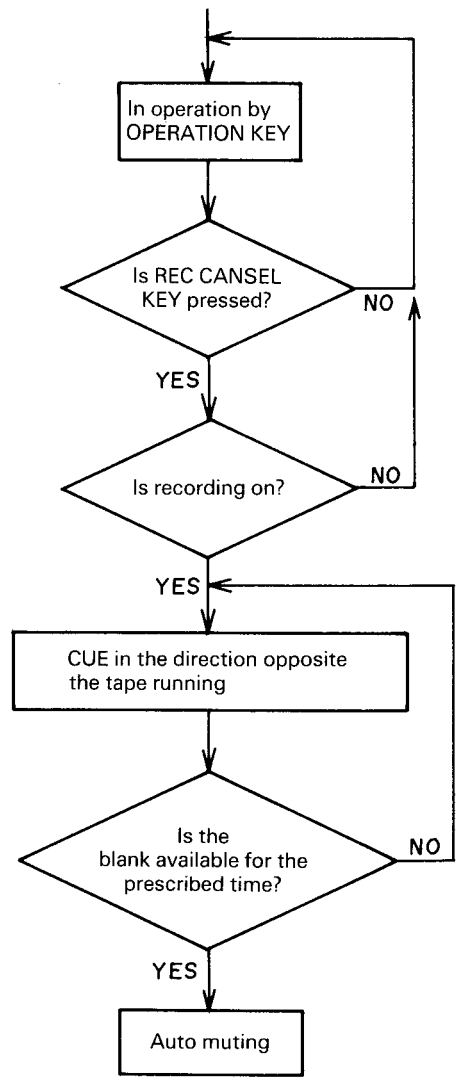


Fig. 17 REC Cancel System

REC CANCEL System is a system which automatically creates REC/PAUSE state after performing the biginning of the program being recorded and making a blank of about 4 seconds.

1) Different point from the previous REC CANCEL
   In the previous REC CANCEL, REC/PAUSE was provided when the blank was detected, thus shortening the blank. In this system, however, a new blank is made by the auto muting so that such system as RPSS which works after detecting the blank operates accurately and that even if the REC CANCEL operation is repeated at the same position, the preceding program is not cancelled.

4. RANDOM PROGRAM SEARCH SYSTEM (RPSS)

RPSS operates in accordance with the contents programmed in IC2.
From IC2 the data (3 bit paralled) are issued to operate SYSCON (IC1) in accordance with the program contents.
When RUN KEY is pressed after programming, rewinding is done regardless of the direction indicated by the DIRECTION LAMP, and the program contents are executed from the beginning of A side (FWD direction).

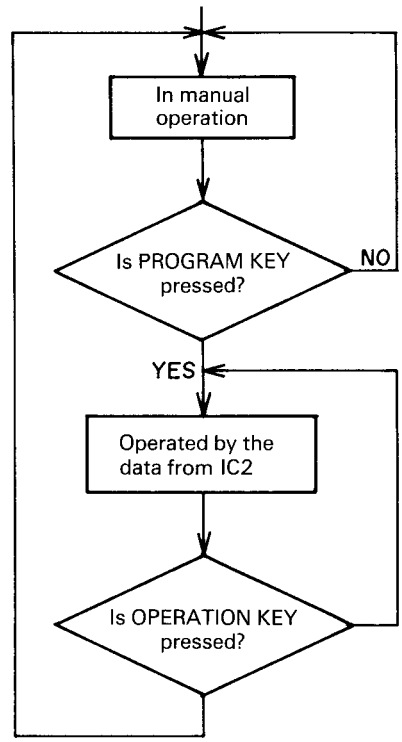


Fig. 18 Operation of IC1 When RPSS is Operated

1) Explanation of Program Operation

	PROGRAM OPERATION	EXPLANATION
1	Sequencial Play	Programmed musics are played in the ascending order from the youngest number. The music numbers can be set at random. Even if there is a duplication of the music number, the same number is played only once. If the repeat number is set at 2 or more, rewinding is done to the tape start end after the last music is played, and the same operation is started. When no repeat number is set, operation stops.
2	Sequencial Skip Play	The programmed musics are skipped by FF CUE operation from the youngest number and the music not programmed is played. After the tape end is detected, rewinding is done to the tape start end, and the same operation is repeated if the repeat number is set. When no repeat number is set, the operation stops.
3	Ramdom Play	The programmed musics are played in the order as they are set. For example, if 1, 1, 3 and 5 are programmed, the operation will be: 1st music played → RWD CUE → 1st music played → 2nd music skipped by FF CUE → 3rd music played → 4th music skipped by FF CUE → 5th music played. If any repeat number is set, the return operation by RWD CUE is made to the tape start end of the music number stored in Memory 1 after the last music is played, and the program is executed. In the above example, music No. 5, 4, 3, 2 and 1 are skipped by FWD CUE after the 5th music is played, and after the biginning of the 1st music is detected, the 1st music is played.
4	Skipping	If SKIP KEY is pressed in during SEQUENCIAL, SEQUENCIAL SKIP or RANDOM operation, the music under play is skipped by FF CUE operation. The SKIP KEY is accepted only during playing.

2) Explanation of Program Key

	TYPE OF KEY	FUNCTION, OPERATION
1	0 – 9, Figure key	2 digit indication of music numbers and repeat numbers in 7 segment LED
2	PROGRAM	Switching between PROGRAM mode and MANUAL mode. In PROGRAM mode, LED ON, and in MANUAL MODE, LED OFF. (PROGRAM mode is released when OPERATION KEY is pressed in (STOP, PLAY, FF, REW, etc.) and switched to MANUAL mode).
3	RANDOM	The program operation mode is set to random mode. The sequential operation mode indicator LED will be OFF and random operation indicator LED will be ON.
4	SEQ	The program operation mode is set to the sequential mode. When the program mode is switched, it is set as the initial value. LED will be ON, and when the random key is pressed in, it will be OFF.
5	SET	The value indicated in the 7 segment LED is stored in the memory. When the key is pressed in, the value indicated in the 7 segment LED is cleared to "00". (the memory counter is automatically incremented.)
6	SKIP	The program operation mode is switched to the skip mode. It is effective when the preceding operation mode is the sequential mode, and if it is the random mode, then ERROR. To release the skip mode, press the skip key again. It is accepted when the play operation (signal H between musics) is made during the execution of the program operation. Then the play operation is stopped and FF CUE is executed.
7	CALL	The momory contents corresponding to the value indicated in 7 segment LED is displayed on the 7 segment LED. In the case of '00' call, the contents of the repeat memory are displayed on the 7 segment LED.
8	CLEAR	When the program is set, all the memory contents so far programmed are cleared. (All the memory contents are set at '0' and repeat memory contents at '1'). During the run operation, the operation is stopped. (the memory contents and repeat memory contents are not cleared).
9	RUN	Press the key in after the program is set and operation mode is set. The program is executed in accordance with the operation mode set.

3) 7 segment LED and Operation Indicator LED

a. Manual Mode
   7 segment LED: 4 digit tape counter indication
   Operation indicator LED: all OFF

b. Program Mode
   7 segment LED: 2-digit music number indication or 3 digit "Err" indication
   Program key in → 7 segment LED: tape counter indication → music number indication '00'
   Operation indicator LED: program LED → ON
   SEQ LED → ON
   In accordance with SKIP or RANDOM key in, the operation indicator LED is turned ON or OFF.

c. 'Err' indication
   1. When the music number is stored in Memory 21,
   2. When the contents of more than Memory 21 is called,
   3. If the skip key is pressed in, in RANDOM mode,
   4. If the RANDOM key is pressed in, in SKIP mode,
   5. When the RUN key is pressed to operate either SEQ or RAND without storing the music number in the memory, (Normal operation in SEQ and SKIP mode)
   6. When a music number larger than the number of musics recorded in the tape is programmed and the program is executed, ('Err' is indicated after the search is made to the tape end by the CUE operation and rewinding is done to the tape start end)
   7. "Err" is released by the CLEAR KEY.

IX. MECHANICAL ADJUSTMENT

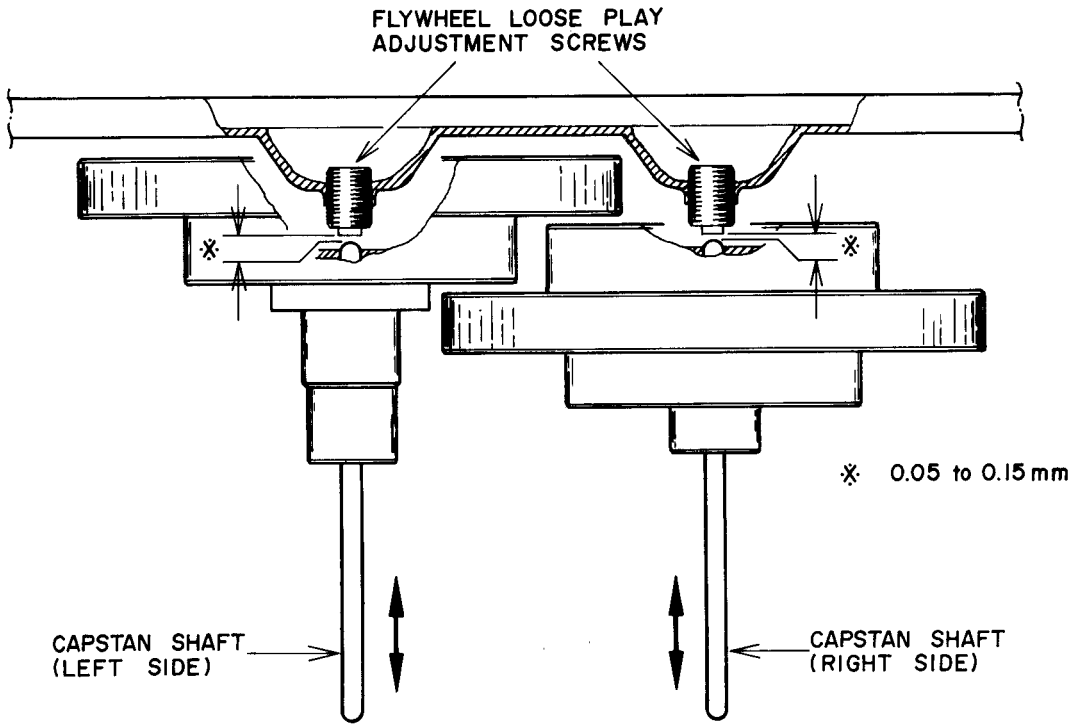


Fig. 19

1. FLYWHEEL LOOSE PLAY ADJUSTMENT
(Refer to Fig. 19)

Adjust by turning flywheel loose play adjustment screws to obtain 0.05 to 0.15 mm of loose play when the capstan shaft is moved as indicated by the arrow mark.

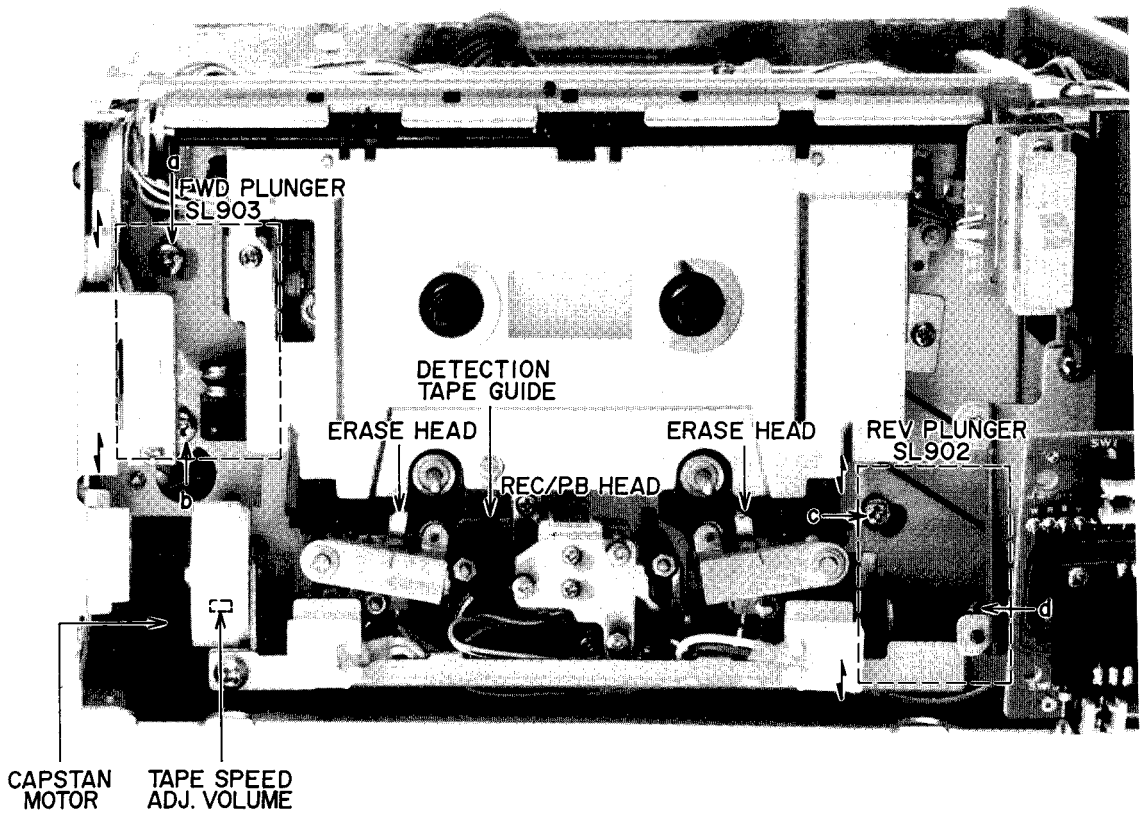


Fig. 20

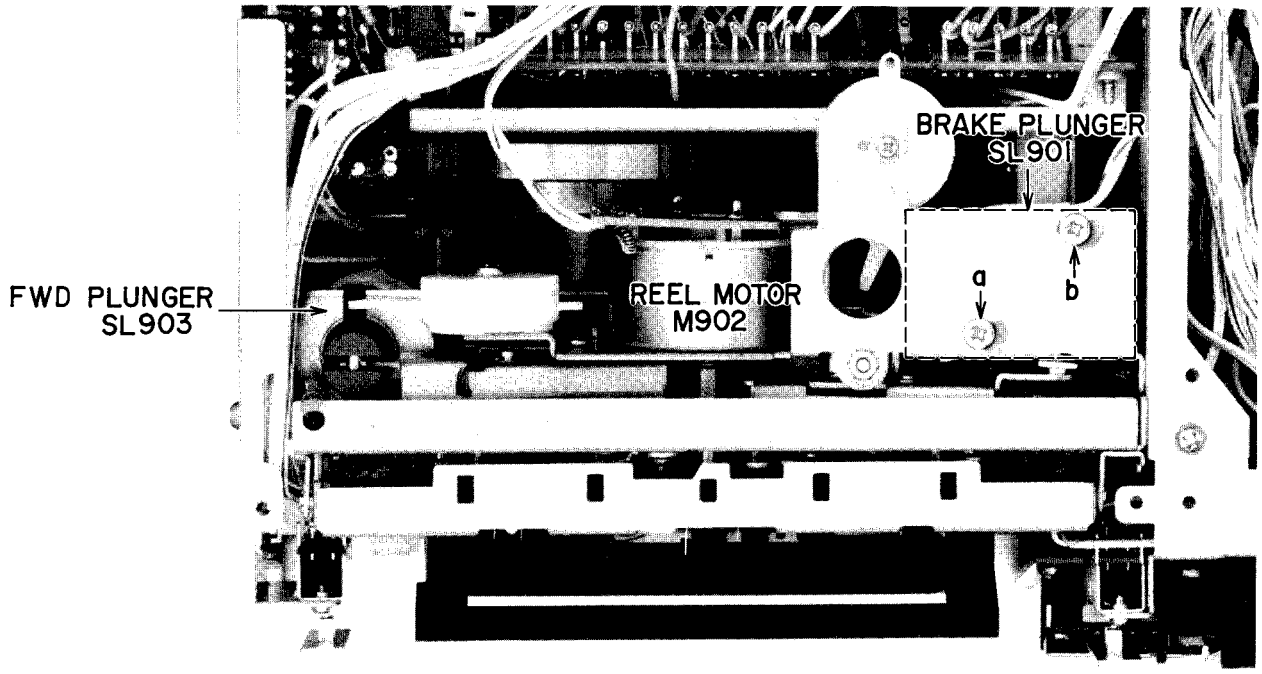


Fig. 21

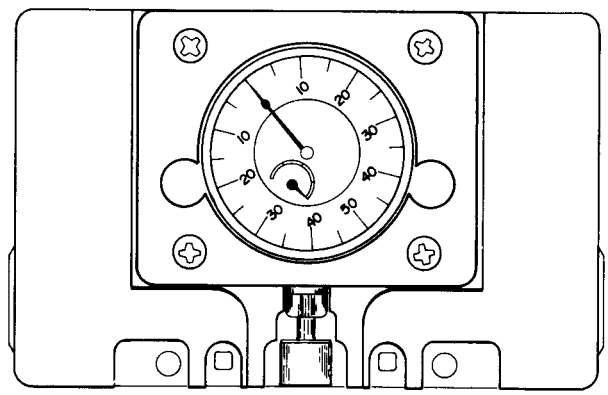


Fig. 22 AKAI Head Projection Gauge

2. PLUNGER POSITION ADJUSTMENT

1) Forward Plunger Adjustment (Refer to Figs. 20, 22)
Set the AKAI Head Projection Gauge. Adjust the screws (a) and (b) so that when FWD PAUSE mode is engaged, the Head Projection Gauge indicates to 2.7 mm ±0.1 mm.
2) Brake Plunger Adjustment (Refer to Figs. 21, 22)
Set the AKAI Head Projection Gauge. Adjust the screws (a) and (b) so that when FWD PLAY mode is engaged, the Head Projection Gauge indicates to 3.35 mm ±0.1 mm.
3) Reverse Plunger Adjustment (Refer to Figs. 20, 22)
Set the AKAI Head Projection Gauge. Adjust the screws (c) and (d) so that when REV PAUSE mode is engaged, the Head Projection Gauge indicates to 2.5 mm ±0.1 mm.
NOTE: This adjustment made is order of numbers.

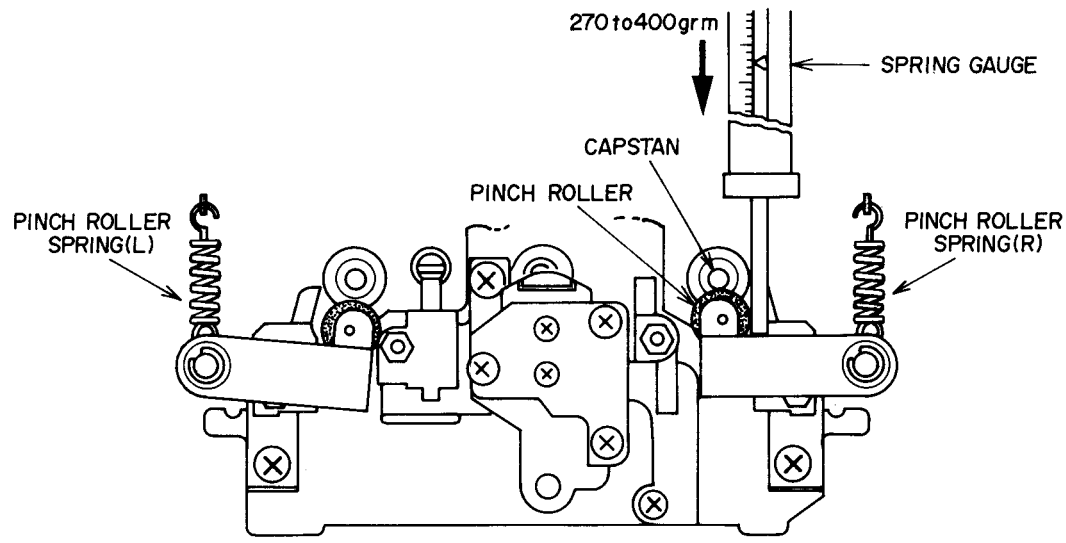


Fig. 23

3. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 23)

Put in FWD PLAY mode. Push pinch roller arm down with the spring gauge push the pinch roller 1 ~ 2 mm from the capstan and release slowly. Read the spring gauge at the moment the pinch roller touches the capstan and begins to rotate.

Specified contact pressure measurement of 270 to 400 grm. If there is no measurement obtained, replace the pinch roller spring. Do the same for the reverse side.

4. WINDING TORQUE MEASUREMENT IN EACH MODE

Insert cassette torque meter and measure in each mode. For fast forward and rewind measure at the end of the tape when the tape has stopped running.

Forward, Reverse: 30 to 55 g-cm

Fast Forward, Rewind: 75 to 130 g-cm

5. TAPE SPEED ADJUSTMENT (Refer to Fig. 20)

Connect a frequency counter to line output terminals. Playback a 1,000 Hz pre-recorded test tape and adjust tape speed adjustment volume to obtain a tape speed of 995 Hz ±5 Hz.

X. HEAD ADJUSTMENT

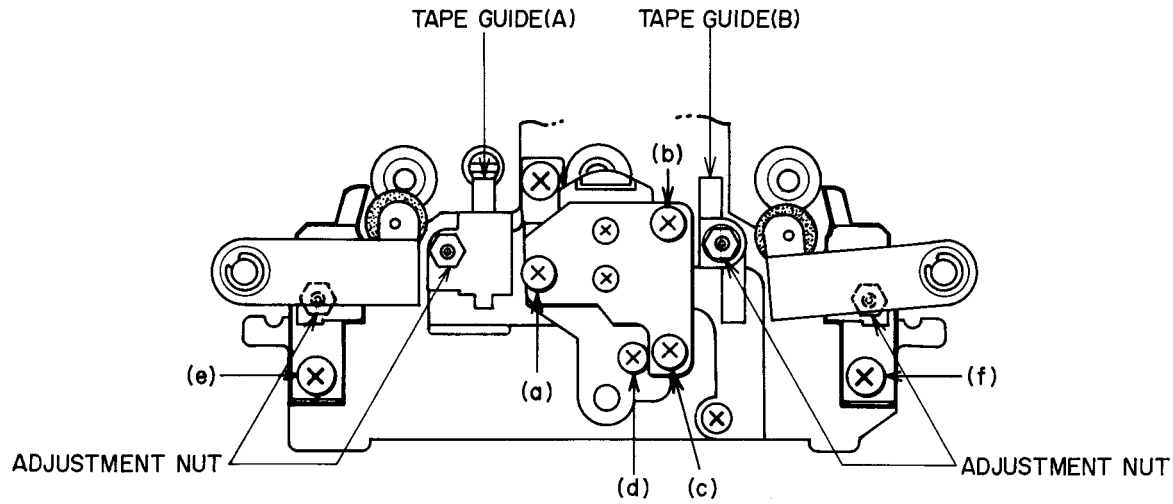


Fig. 24

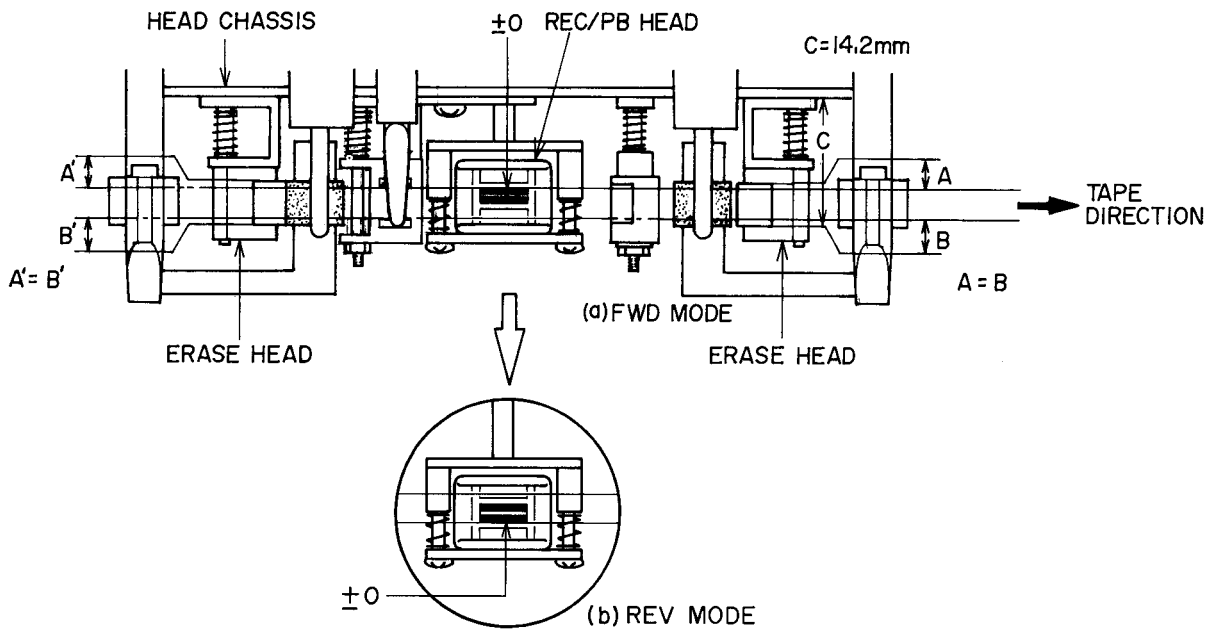


Fig. 25

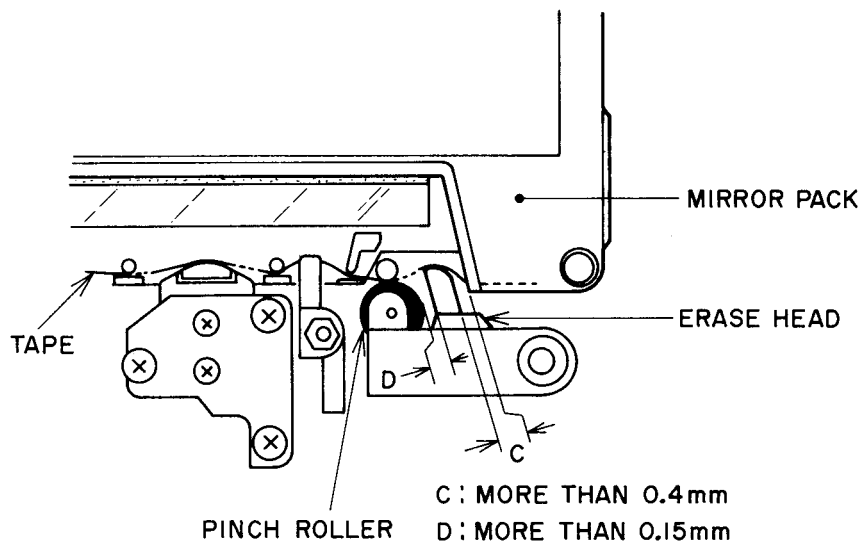


Fig. 26

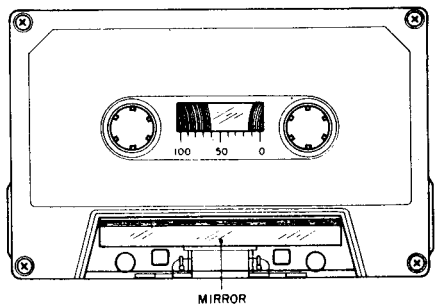


Fig. 27

1. ERASE HEAD HEIGHT ADJUSTMET (Refer to Figs. 24 to 27)

Usually this adjustment is not carried out. If adjustment is necessitated by head change for example, proceed as follows:

Adjust by turning the adjustment nut until the height, taken from the surface of the Head Chassis to the lower tip of the Erase Head Core (Fig. 25C) is 14.2 mm.

2. ERASE HEAD INSTALLATION ANGLE ADJUSTMENT (Refer to Figs. 24 and 26)

Please adjust by loosening screws (e) and (f) (Fig. 24) until the gap D between the Erase Head and the Pinch Roller is over 0.15 mm and the gap C between the Erase Head and the Cassette Pack is over 0.4 mm as in Fig. 26.

Adjust the right hand Erase Head in the FWD mode and the left hand Erase Head in the REV mode. During the adjustment, make gap C as large as possible.

3. TAPE GUIDE HEIGHT ADJUSTMENT (Refer to Figs. 24, 25, 27)

1) When using an ordinary cassette, the tape guides and heads, etc. are not visible. As shown in Fig. 12 use a cassette tape from which part of the cassette case has been cut out and a mirror installed easy visibility of the head area when making tape guide height adjustment.
2) The adjustment to Tape Guides (A) and (B) are carried out with the Erase Head at the standard height. Put into the FWD mode and adjust Tape Guide (A). Make the width of the sections (A' and B' in Fig. 25) protrading from both ends of the tape of the left side Erase Head the same.
   Next in the REV mode adjust Tape Guide (B) until A and B in Fig. 25 are the same. Finally, in either FWD or REV modes.
   Check that the tape is running smoothly without catching on the tape guides.

4. REC/PB HEAD HEIGHT ADJUSTMENT (Refer to Figs. 24, 25)

Playback the Head Height adjustment Tape (4 Track 1,000 Hz) in the Reverse Play Mode and adjust the screws (a) (b) and (c) until the output level of both channels reaches maximum. Next put in the Forward Mode and adjust the screw (d) so that output level reaches maximum same as above.

5. REC/PB HEAD AZIMUTH ADJUSTMENT (Refer to Fig. 24)

1) Playback the azimuth adjustment tape (10 kHz) in the REV PLAY mode and adjust screw (a), until the output level of both channels reaches maximum (the AC voltmeter registers maximum).
2) Put in reverse mode and check that the output level is the same as in the forward mode. If different, adjust with screw (a), until the level is the same in both modes.
3) After adjustment, check both the head height and the azimuth.

NOTES:

1) Be sure to clean the heads prior to head adjustment.
2) Be careful not to use a magnetized driver or other magnetized tools in the vicinity of the heads.
3) Be sure to demagnetize the heads with a Head Demagnetizer before and after head adjustment.

XI. ELECTRICAL ADJUSTMENT

1. QUICK REVERSE SENSITIVITY ADJUSTMENT

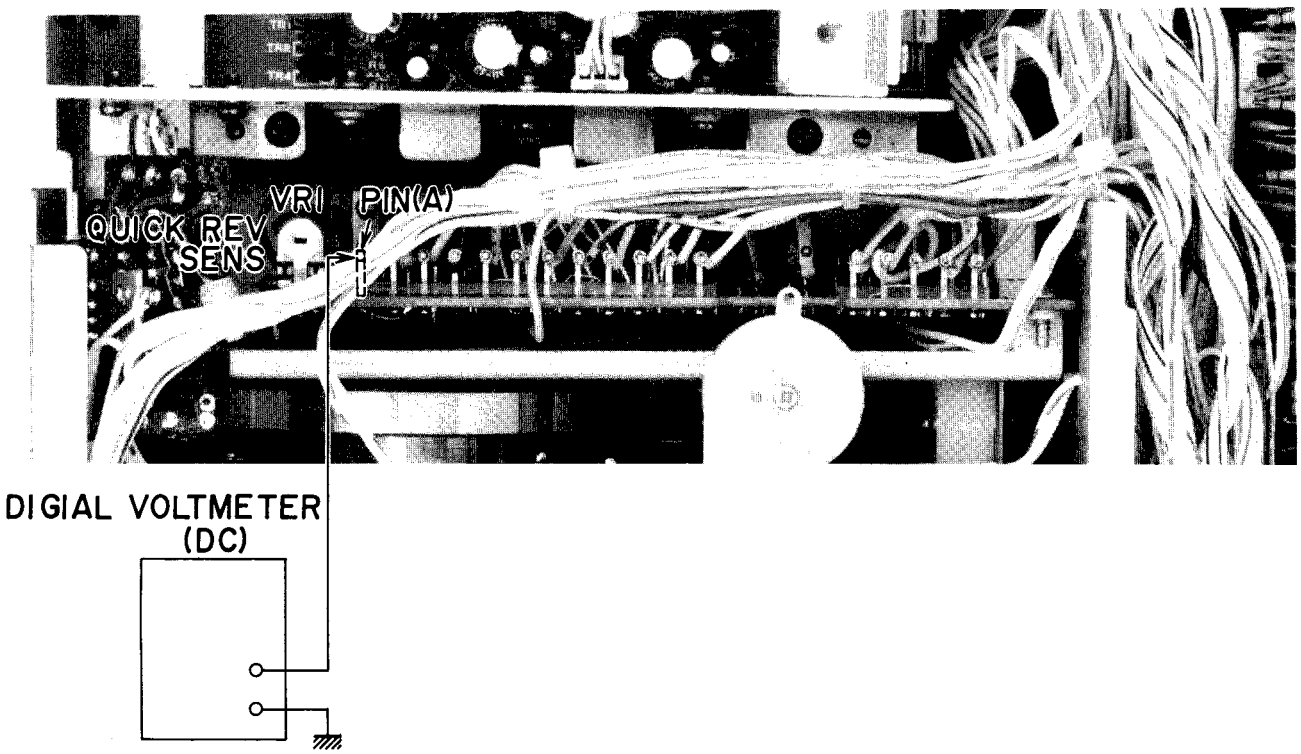


Fig. 28 Drive PCB

1) Make a tapeless cassette pack by removing the tape from the white colored test tape.
2) Connect the Digital Voltmeter between the PIN (A) and earth.
3) Using the tapeless cassette pack, adjust VR1 so that the Digital Voltmeter readings 6V ±0.2V DC at FWD play mode.

NOTE: Clean the Reference Pole, before this adjustment.

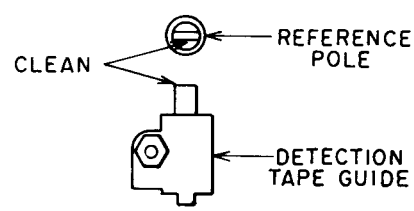


Fig. 29

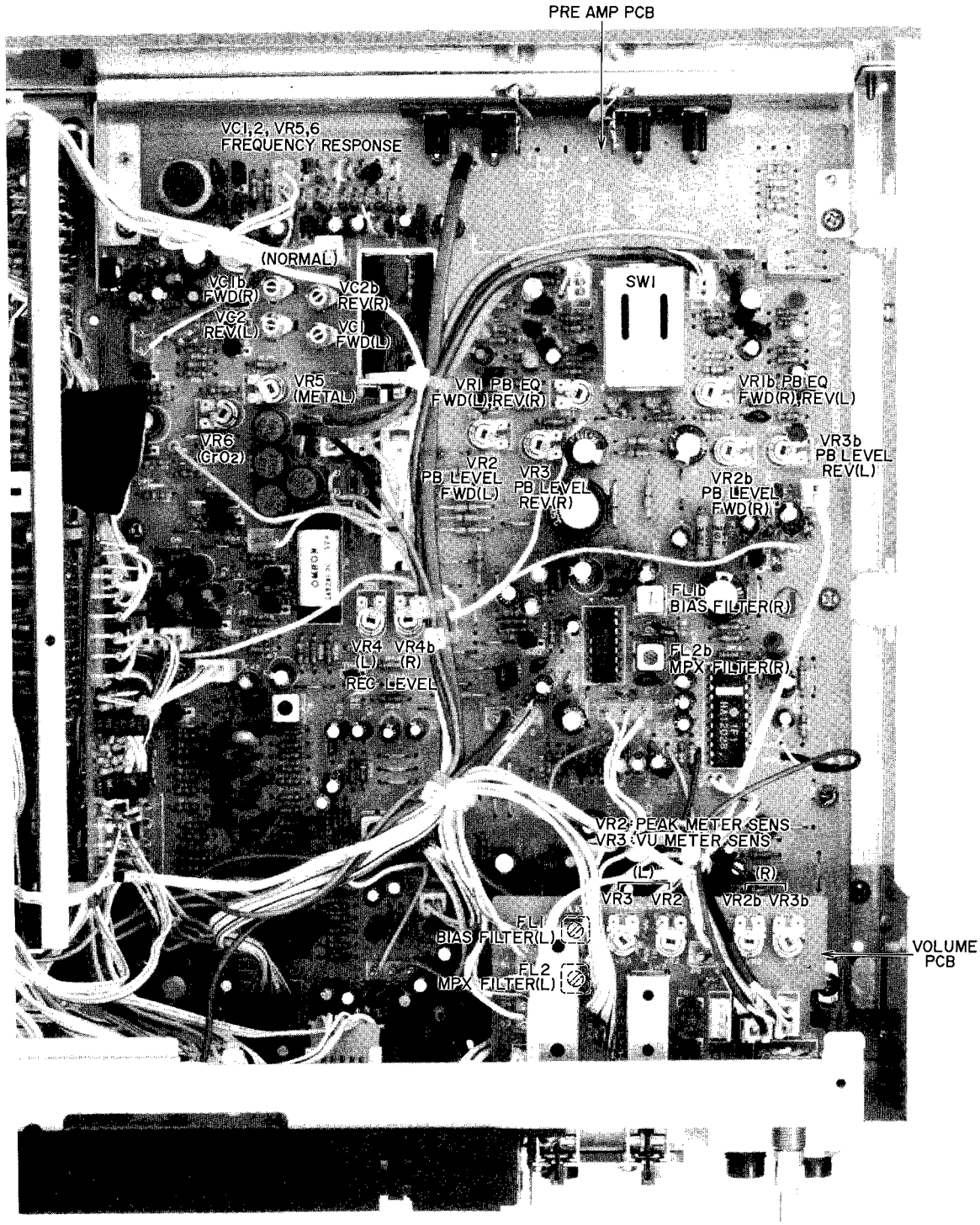


Fig. 30 Amplifier Adjustment

MODE	ADJUSTMENT ITEM	TEST TAPE SUPPLY SIGNAL	MODE	ADJUSTMENT POINT	RESULT	REMARKS
1	FWD Playback Level	333 Hz 0 VU Test Tape	FWD PB	VR2	−5.5 ±0.5 dBm (410 mV)	
2	REV Playback Level	333 Hz 0 VU Test Tape	REV PB	VR3	−5.5 ±0.5 dBm (410 mV)	
3	PB EQ	10,000 Hz Test Tape	FWD-REV/ PB	VR1	−19 ±1.5 dBm	
4	Normal Position Frequency Response (FWD)	Normal Blank Tape 1,000 Hz 10,000 Hz −25.5 dBm recording	FWD-REC/ PB	VC1	1,000 Hz to 10,000 Hz flat response	
5	Normal Position Frequency Response (REV)	Normal Blank Tape 1,000 Hz 10,000 Hz −25.5 dBm recording	REV-REC/ PB	VC2	1,000 Hz to 10,000 Hz flat response	
6	CrO_2 Position Frequency Response	CrO_2 Blank Tape 1,000 Hz 10,000 Hz −25.5 dBm recording	FWD/ REV-REC/ PB	VR6	10,000 Hz to 10,000 Hz flat response	
7	Metal Position Frequency Response	Metal Blank Tape 1,000 Hz 10,000 Hz −25.5 dBm recording	FWD/ REV-REC/ PB	VR5	1,000 Hz to 10,000 Hz flat response	
8	Recording Level	Normal Blank Tape 1,000 Hz −5.5 dBm recording	FWD/ REV-REC/ PB	VR4	−5.5 ±0.5 dBm (410 mV)	
9	FWD Distortion Factor Confirmation	1,000 Hz −5.5 dBm recording	FWD-REC/ PB		Normal < 0.8% CrO_2 < 0.7% Metal < 0.7%	NOTE 6
10	REV Distortion Factor Confirmation	1,000 Hz −5.5 dBm recording	REV-REC/ PB		Normal < 0.8% CrO_2 < 0.7% Metal < 0.7%	NOTE 6
11	Bias Filter	No Signal Input	REC	FL1	AC Voltmeter indicates to minimum	Set REC Vol. to maximum NOTE 7
12	19 kHz Filter	19 kHz from Oscillator	REC	FL2	AC Voltmeter indicates to minimum	Set Dolby NR switch to ON. Filter ON position NOTE 7, 8
13	VU Sensitivity	1 kHz, −5.5 dBm from oscillator	REC	VR3 (Volume PCB)	0 dB indication	Set the PEAK/VU selector to VU
14	PEAK Sensitivity	1 kHz, −5.5 dBm from oscillator	REC	VR2 (Volume PCB)	0 Peak (−7 dB VU) indication	Set the PEAK/VU selector to PEAK

NOTES:

1. Input selector switch to LINE.
   (The U, C, A and J Models do not have this facility.)
2. Because each of these adjustment is vital to perfect Dolby NR circuit operation, ensure that they are carried out with as few errors as possible.
3. Except for Step 12 set Dolby NR switch to OFF position.
4. Use the following cassette measuring tapes:
   Normal Tape: Maxell UD C-60 CrO_2 Tape: TDK SA C-60 Metal Tape: TDK MA-C C-60
5. Use the test tape of 10 kHz recorded at the level of −18.7 dBm.
6. If it does not comply with the specifications, repeat Steps 4 to 8 and readjust.
7. Unless the core is moved unitentionally this adjustment is not necessary.
8. Adjust the oscillator's frequency to give a frequency counter reading of 19.00 kHz.

XII. DC RESISTANCE OF VARIOUS COILS

DESCRIPTION	NAME	DC RESISTANCE
REC/PB Head	PT4-8FU	460 ohms ± 10%
Erase Head	HF213131	3.2 ohms
Plunger Solenoid	1240PLT	90 ohms ± 10%

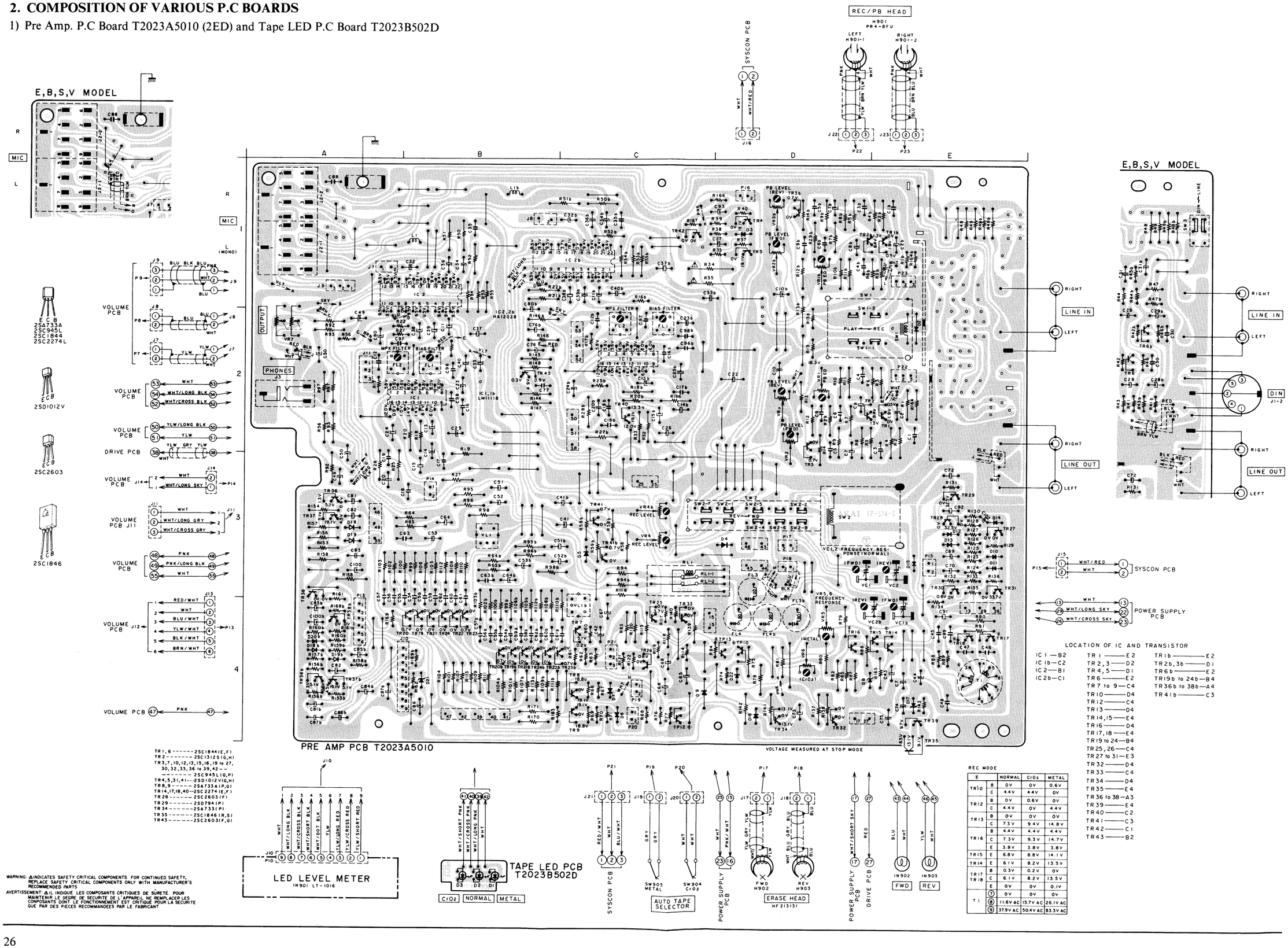
XIII. CLASSIFICATION OF VARIOUS P.C BOARDS

1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

P.C BOARD TITLE	P.C BOARD NUMBER
Pre Amp P.C Board	T2023A5010
Syscon P.C Board	T2023B5030
Drive P.C Board	T2023C5040
Power Supply P.C Board	T2023B502A
Key Board P.C Board	T2023C5050
Volume P.C Board	T2023C5060
Dolby LED P.C Board	T2023B502E
Tape LED P.C Board	T2023B052D
Remote Control P.C Board	T2023B502B
Slide P.C Board	T2023B502F
Reverse P.C Board	T2023D5070
Lamp P.C Board	T2022D5140
Filter P.C Board	CL-5026
LD P.C Board	T2023D5090
Rec Cancel P.C Board	T2023D5080
Lamp Meter P.C Board	T2023B502C

2. COMPOSITION OF VARIOUS P.C BOARDS

1) Pre Amp. P.C Board T2023A5010 (2ED) and Tape LED P.C Board T2023B502D



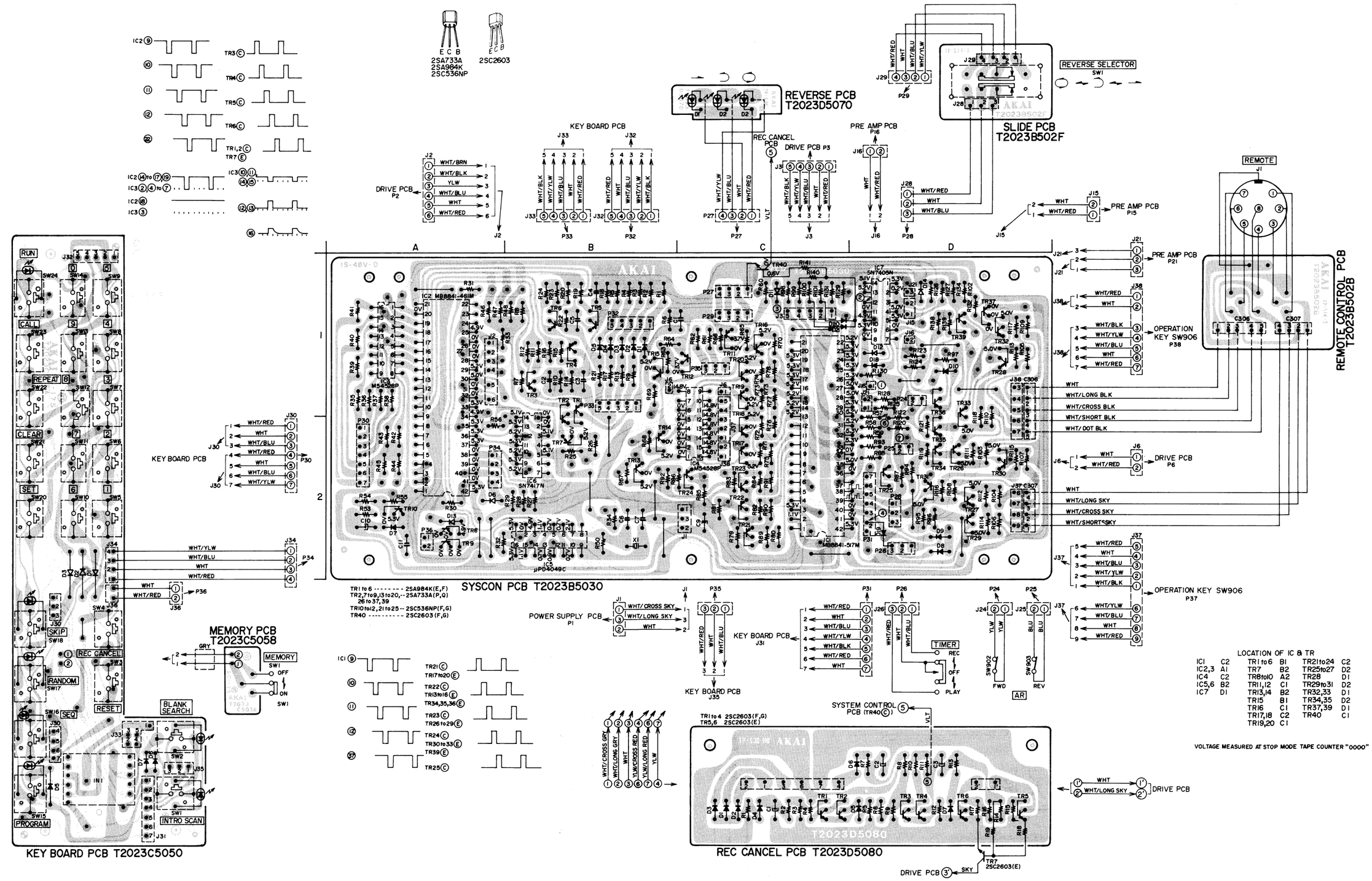
REC MODE

		NORMAL	CrO2	METAL
TR10	B	0V	0V	0.6V
	C	4.4V	4.4V	0V
TR12	B	0V	0.6V	0V
	C	4.4V	0V	4.4V
TR13	B	0V	0V	0V
	C	7.3V	9.4V	14.8V
TR16	B	4.4V	4.4V	4.4V
	C	7.3V	9.3V	14.7V
	E	3.8V	3.8V	3.8V
TR15	E	6.8V	8.8V	14.1V
TR14	E	6.1V	8.2V	13.5V
TR17 TR18	B	0.3V	0.2V	0V
	C	6.1V	8.2V	13.5V
	E	0V	0V	0.1V
T1	⑦	0V	0V	0V
	⑧	11.6V AC	15.7V AC	26.1V AC
	⑨	37.9V AC	50.4V AC	83.3V AC

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

2) Syscon P.C Board T2023B5030 (2ED), Key Board P.C Board T2023C5050, Rec Cancel P.C Board T2023D5080, Remote Control P.C Board T2023B502B Slide P.C Board T2023B502F and Reverse P.C Board T2023D5070


E C B
2SA733A
2SA984K
2SC536NP
E C B
2SC2603
REVERSE PCB
T2023D5070
REVERSE SELECTOR
SW1
SLIDE PCB
T2023B502F
KEY BOARD PCB
REC CANCEL PCB
DRIVE PCB P3
PRE AMP PCB P16
DRIVE PCB P2
REMOTE
J1
REMOTE CONTROL PCB
T2023B502B
PRE AMP PCB P15
PRE AMP PCB P21
OPERATION KEY SW906 P38
OPERATION KEY SW906 P37
DRIVE PCB P6
SYSCON PCB T2023B5030
μPD4049C
SN7417N
SN7405N
M54526P
M58841-461M
M58841-571M
TR1 to 6 -------- 2SA984K(E,F)
TR2,7 to 9,13 to 20,--2SA733A(P,Q)
26 to 37,39
TR10 to 12,21 to 25 -- 2SC536NP(F,G)
TR40 ---------- 2SC2603(F,G)
POWER SUPPLY PCB P1
KEY BOARD PCB J31
KEY BOARD PCB J35
TIMER
REC
OFF
PLAY
FWD
REV
AR
SYSTEM CONTROL PCB (TR40 C)
TR1 to 4 2SC2603(F,G)
TR5,6 2SC2603(E)
REC CANCEL PCB T2023D5080
DRIVE PCB (3') SKY
TR7 2SC2603(E)
DRIVE PCB (1') WHT (2') WHT/LONG SKY
KEY BOARD PCB T2023C5050
MEMORY PCB
T2023C5058
MEMORY SW1
OFF
ON
SW1
RUN
CALL
REPEAT
CLEAR
SET
SKIP
REC CANCEL
RANDOM
RESET
SEQ
BLANK SEARCH
INTRO SCAN
PROGRAM
KEY BOARD PCB
WHT/RED
WHT
WHT/BLU
WHT/RED
WHT
WHT/BLU
WHT/YLW
WHT/YLW
WHT/BLU
WHT
WHT/RED
WHT
WHT/RED
WHT/LONG BLK
WHT/CROSS BLK
WHT/SHORT BLK
WHT/DOT BLK
WHT
WHT/LONG SKY
WHT/CROSS SKY
WHT/SHORT SKY
WHT
WHT/RED
WHT/BLU
WHT/YLW
WHT/BLK
WHT/YLW
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WHT/RED
WHT/CROSS SKY
WHT/LONG SKY
WHT
WHT/CROSS GRY
WHT/LONG GRY
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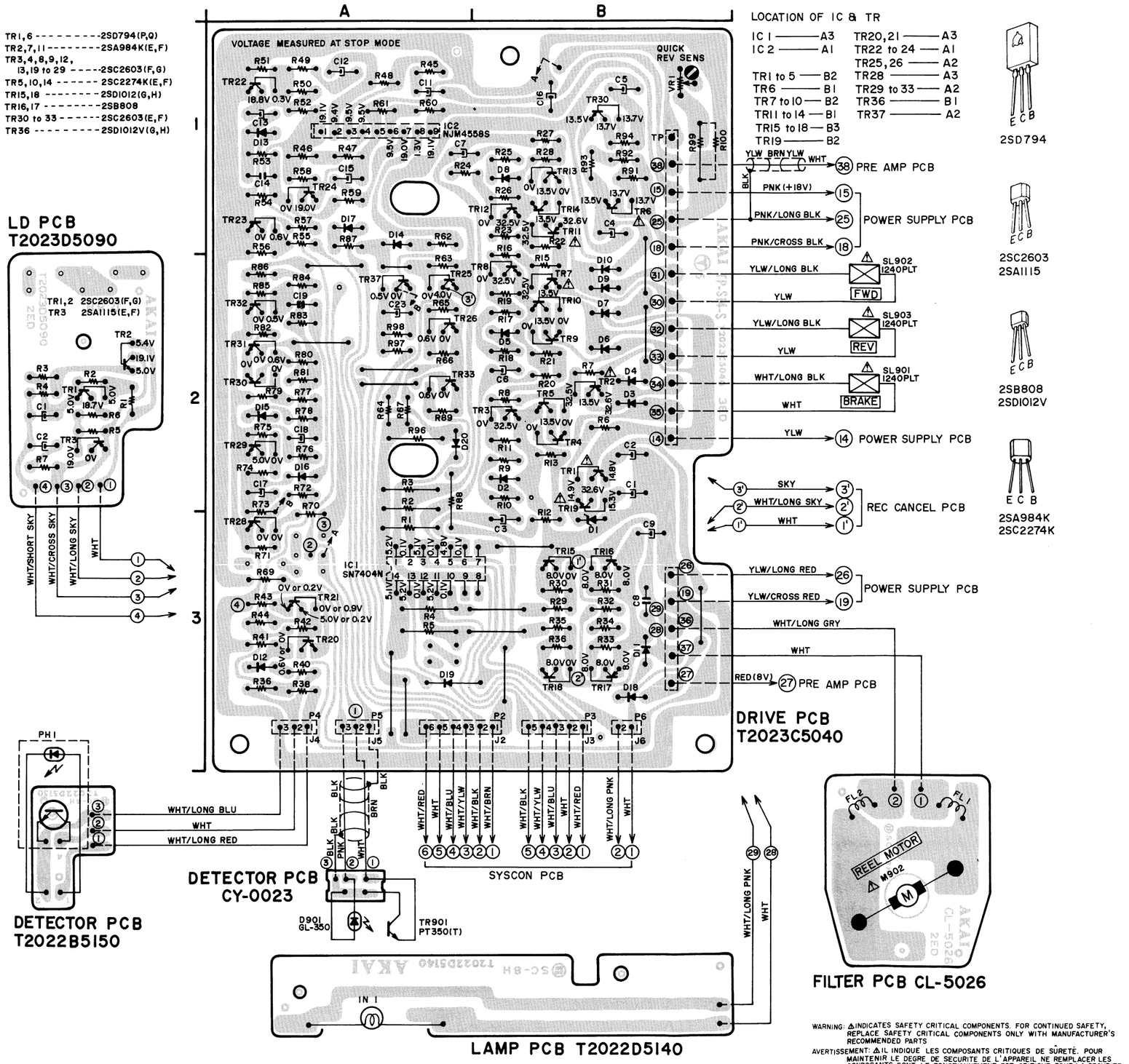
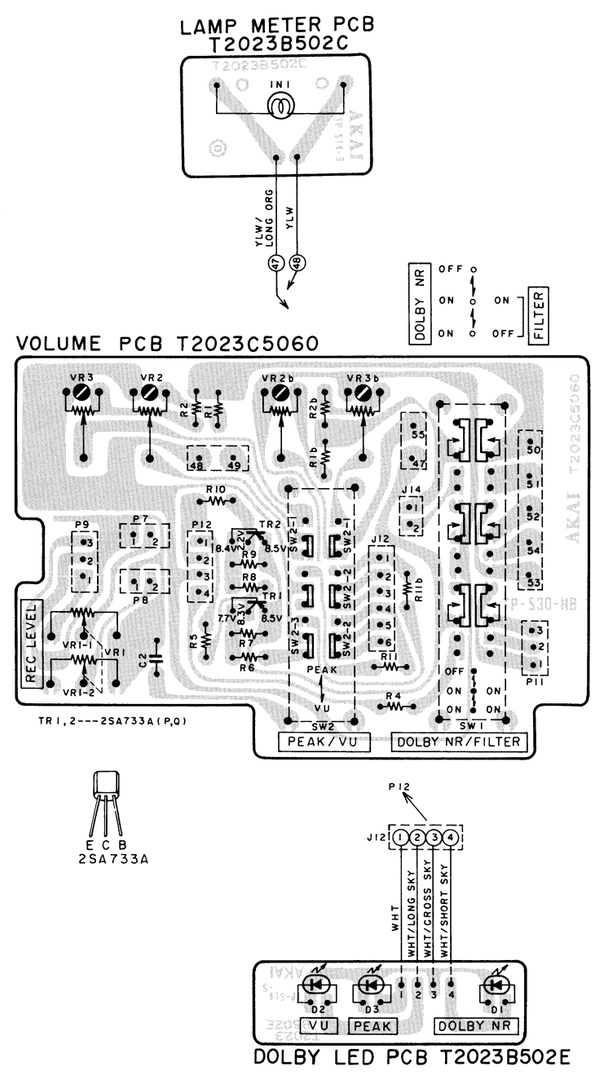
YLW/CROSS RED
YLW/LONG RED
YLW
GRY
WHT/RED
WHT
WHT/BLU
WHT/YLW
WHT/BLK
WHT/RED
WHT
WHT/RED
WHT
WHT/BLU
WHT/YLW
WHT/BLK
WHT/RED
WHT
WHT/BLU
WHT/YLW
WHT/BLK
WHT/RED
WHT
WHT/RED

3) Drive P.C Board T2023C5040 (3ED), LD P.C Board T2023D5090, Lamp P.C Board T2022D5140 and Filter P.C Board CL-5026 (2ED)



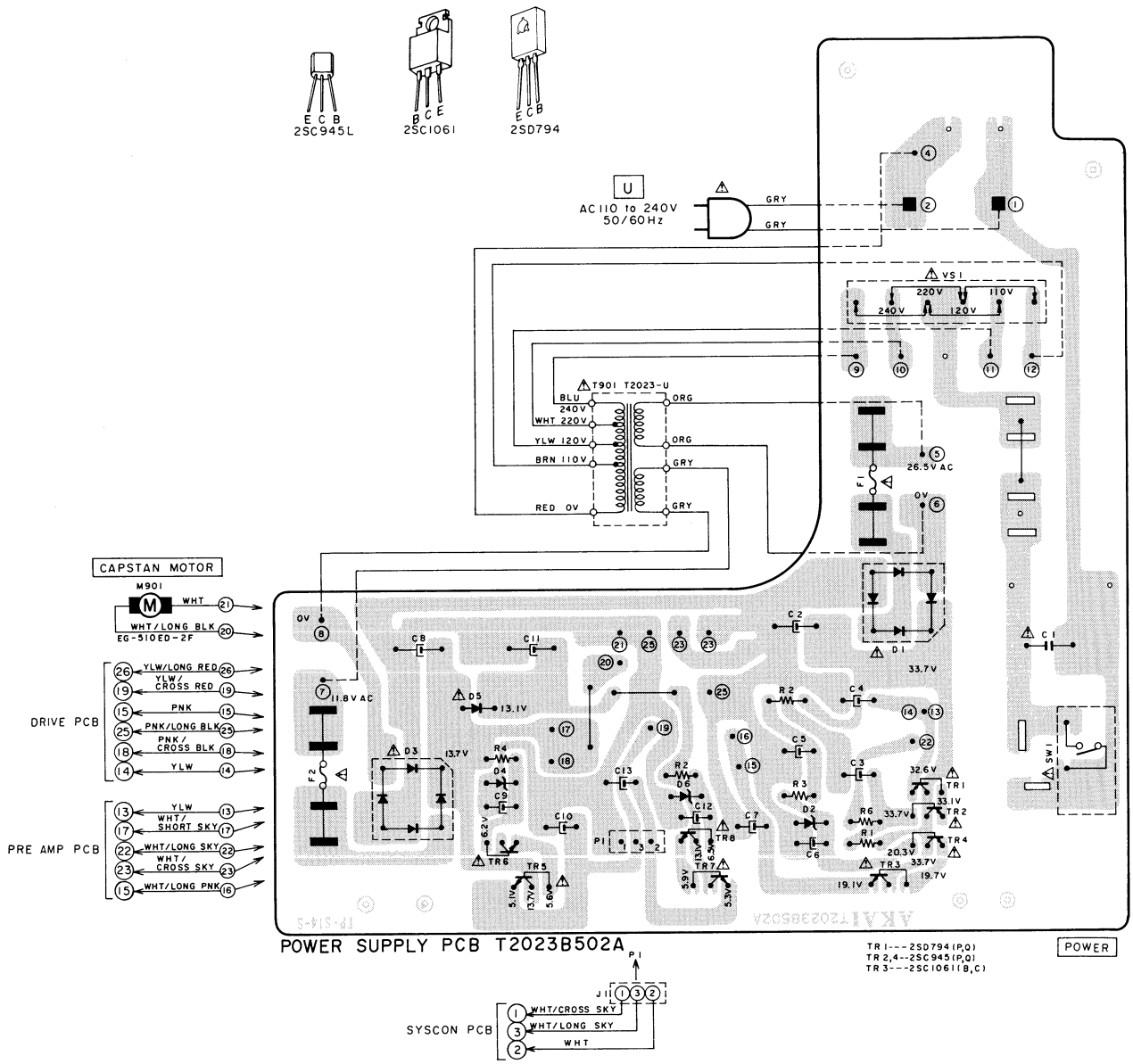
4) Volume P.C Board T2023C5060, Dolby LED P.C Board T2023B502E and Lamp Meter P.C Board T2023B502C



WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

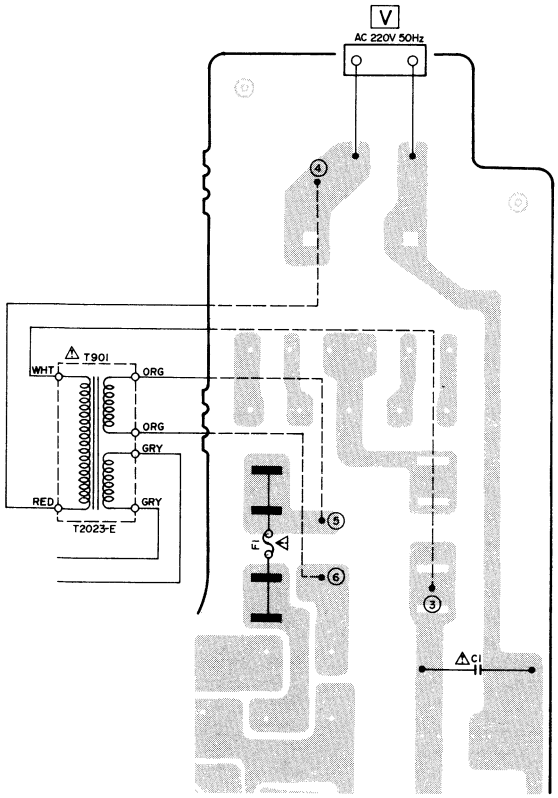
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

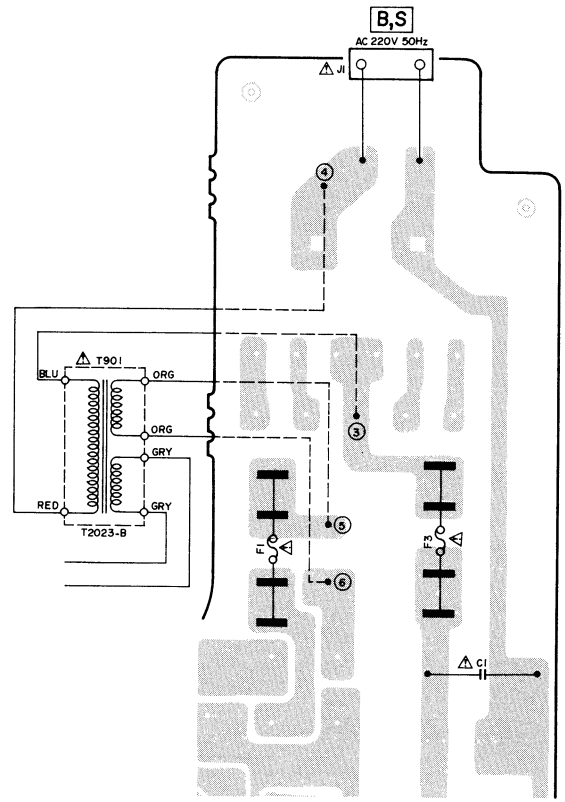
5) Power Supply P.C Board T2023B502A



WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

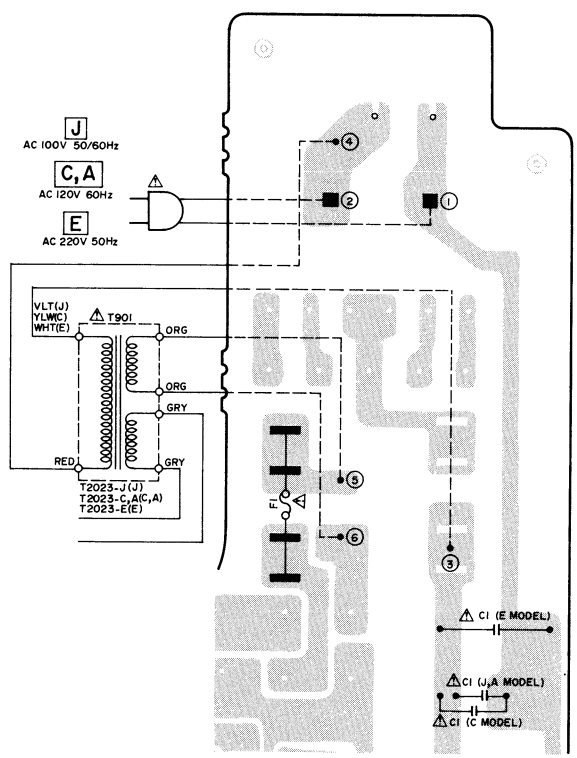
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT





WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SÉCURITÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



SECTION 2

PARTS LIST

TABLE OF CONTENTS

1. RECOMMENDED SPARE PARTS 37
2. HEAD BASE BLOCK 38
3. REEL TABLE BLOCK 41
4. MECHA FRAME BLOCK 42
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7. POWER SUPPLY P.C BOARD BLOCK 45
8. DRIVE P.C BOARD BLOCK 45
9. REC CANCEL P.C BOARD BLOCK 45
10. KEY BOARD P.C BOARD BLOCK 45
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12. VR P.C BOARD BLOCK 45
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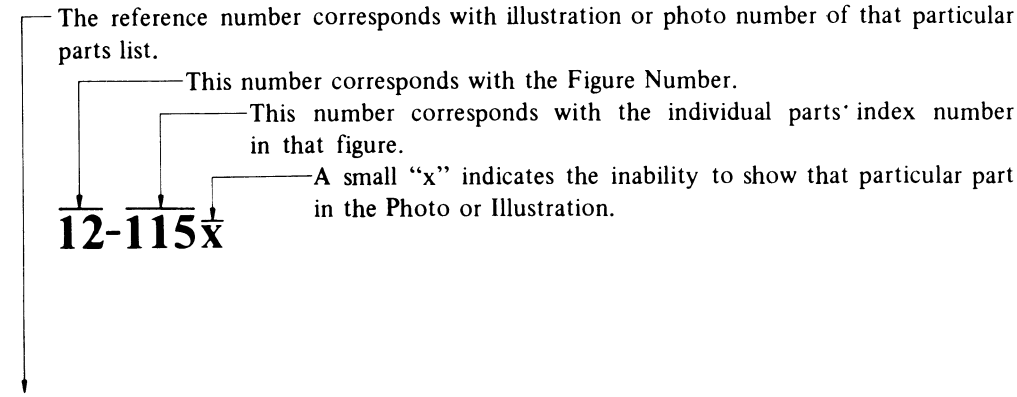
Resistor and Capacitor which are not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read list.


The reference number corresponds with illustration or photo number of that particular parts list.
This number corresponds with the Figure Number.
This number corresponds with the individual parts' index number in that figure.
A small "x" indicates the inability to show that particular part in the Photo or Illustration.
12-115x

Ref. No.	Parts No.	Description
		FLYWHEEL BLOCK #13
12-115x	800425	Flywheel Block Assy. Comp.
12-116	244506	Flywheel Only
12-117x	244754	Felt, Flywheel
12-118	251324	Main Metal Case
12-119	253080	Main Metal

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
   It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

CAUTION:

1. **When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.**
2. **Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.**
3. **Because parts number and parts unit supply in the Preliminary Service Manual (Basic Parts List) may be partially changed, please use this parts list for all future reference.**

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMEMNDED PARTS.

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

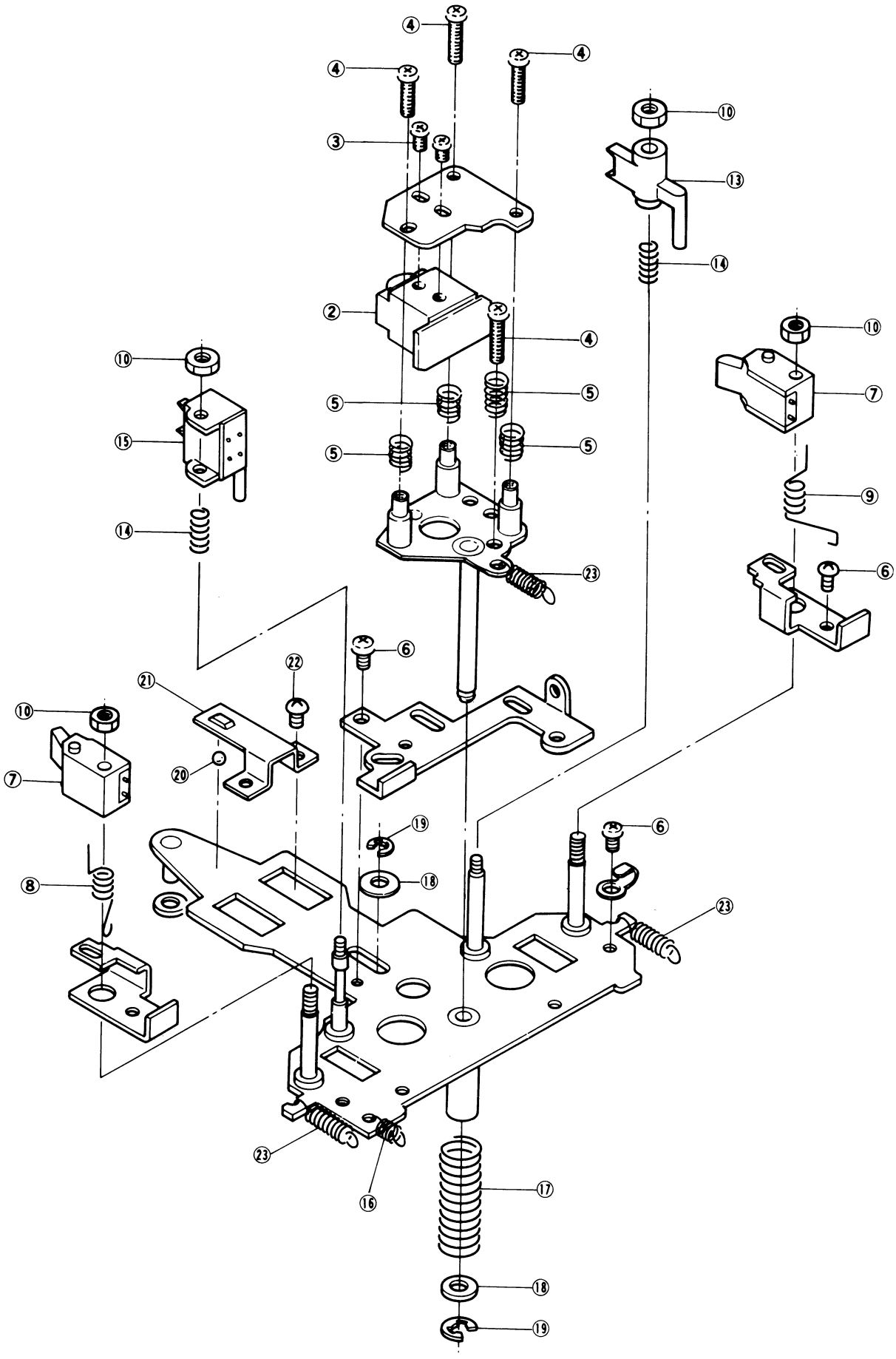
1. RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.	PARTS NO.	DESCRIPTION
1-1	BHT2023A320A	HEAD BASE BLK GX-F66R
1-2	BI312117	REW IDLER ASSY
1-3	BI312118	TAKE UP IDLER ASSY
1-4	BMT2022A080A	⚠ MOTOR (PULLEY) BLK CS-F33R
1-5	BM314843	⚠ MOTOR EG-510ED-2F
1-6	BM328441	⚠ MOTOR RF-510T (12620)
1-7	BMT2016A320A	⚠ REEL MOTOR BLK (W/PULLEY) GX-F35
1-8	BR328424	TAKE-UP REEL TABLE ASSY
1-9	BT331666	⚠ TRANS POWER T2023-B, S
1-10	BT331665	⚠ TRANS POWER T2023-C, A, V
1-11	BT331664	⚠ TRANS POWER T2023-E
1-12	BT331663	⚠ TRANS POWER T2023-J
1-13	BT331662	⚠ TRANS POWER T2023-U
1-14	BZT2010A070A	DETECTION TAPE GUIDE BLK CS-M40R
1-15	ED308953	D GERMA H 1K34A-LH SNP
1-16	ED562397	D GERMA H 1S188FM1
1-17	ED308952	D GERMA V 1K34A-LR F07
1-18	ED322773	D LED SLP-255D-01 GRN
1-19	ED200469	D SILICON H DS448 FA5 F10
1-20	ED624903	D SILICON H 1S2473
1-21	ED316143	D SILICON H 1S2473HS F10
1-22	ED560913	D SILICON V 1S2473VE
1-23	ED306109	D SILICON W03B 100/1.0A
1-24	ED319463	D SILICON 4B4B41 100/4.0A
1-25	ED328486	D ZENER H HZ15 3
1-26	ED324013	D ZENER H HZ20 2
1-27	ED331626	D ZENER H HZ3 B2
1-28	ED305704	D ZENER H HZ4 B2
1-29	ED319167	D ZENER H HZ6 C3
1-30	ED331667	D ZENER H HZ7 A1
1-31	ED306014	D ZENER H HZ9 C3
1-32	ED331263	IND LE LT-1016 GRAPH
1-33	EF593706	⚠ FUSE SEMKO T 250V 0.50A (F3) (S, V)
1-34	EF601301	⚠ FUSE SEMKO T 250V 2A (F1, 2) (E, B, S, V)
1-35	EF306950	⚠ FUSE TSC A 250V 2A (F1, 2) (U, J)
1-36	EF306954	⚠ FUSE TSC 125V 2A (F1, 2) (C, A)
1-37	EI311959	IC HA12028
1-38	EI312179	IC LM1111B
1-39	EI331658	IC MB8841-461M
1-40	EI331657	IC MB8841-517M
1-41	EI331659	IC M54528P
1-42	EI201940	IC NJM4558S
1-43	EI302681	IC SN7404N
1-44	EI331661	IC SN7405N
1-45	EI331660	IC SN7417N
1-46	EI319555	IC UPD4049C
1-47	EI318384	OSC X'TAL NC-18C 3.579545MHZ
1-48	EJ310567	SOCKET INLET 0378PC-GS E 2P (B, S, V)
1-49	EL309960	PLCORD 24.0V 50MA 450/450
1-50	EL304025	PL H LEAD 10V 110MA
1-51	EL317599	PL H LEAD 6.3V 100MA
1-52	EL300186	PL LEAD 8V 60MA
1-53	EM331669	IND LE SL-1003 CHARACTER
1-54	EP328529	RELAY LEAD LAB2NS 2NO 12V
1-55	EP318644	SOLENOID 1240PLT 27V
1-56	EP318645	SOLENOID 1240PLT 27V
1-57	ER328490	FILTER DB D07-001K 19KHZ
1-58	ER328491	FILTER DB D07-003K 100KHZ
1-59	ES330521	SW LEAF BSW-47AB 01-1 NC
1-60	ES330522	SW LEAF BSW-47AC 01-1 NC
1-61	ES331675	SW LEVER 00620388 2-06-02N
1-62	ES321274	SW LEVER 63349 2-06-03S
1-63	ES331670	SW OPERATION F66R 8P L
1-64	ES312234	SW PUSH SDL-1P 01-1 E (U, E, B, S, V)
1-65	ES312235	SW PUSH SDL-1P 01-1 J (J)
1-66	ES312238	SW PUSH SDL-1P 01-1 UC (C, A)
1-67	ES328416	SW SLIDE SSB02385 2-02-03S
1-68	ES331260	SW SLIDE SSB423 2-02-03N
1-69	ES283072	SW SLIDE SSC22LP 2-02-02N
1-70	ES201527	SW SLIDE SSS212 1-01-02N
1-71	ES311975	SW SOLENOID R8150050 27V 10-2W
1-72	ES328415	SW SOLENOID SWE018401 18V 04-2S
1-73	ES323367	SW TACT KEC10001
1-74	ES324677	SW TACT KEC11904
1-75	ET311977	PHOTO SENSOR SP1-201
1-76	ET200558	TR 2SA1115 E, F
1-77	ET539133	TR 2SA733A P
1-78	ET554657	TR 2SA733A P, Q
1-79	ET324134	TR 2SA984K E, F
1-80	ET328438	TR 2SB808-V F, G
1-81	ET375603	TR 2SC1061 B, C
1-82	ET603257	TR 2SC1312S G, H
1-83	ET308954	TR 2SC1844 E, F
1-84	ET310920	TR 2SC1846 R, S
1-85	ET309353	TR 2SC2274 E, F
1-86	ET200596	TR 2SC2603 E
1-87	ET200506	TR 2SC2603 F
1-88	ET200985	TR 2SC2603 F, G
1-89	ET639437	TR 2SC945L Q, P
1-90	ET328868	TR 2SD1012-V G, H
1-91	ET332245	TR 2SD794 P
1-92	ET307349	TR 2SD794 P, Q
1-93	EV202110	VR ROTARY 16P11x0S A503 A503
1-94	EV313538	VR ROTARY 16P20x1B B103
1-95	HE325859	HEAD E HF213131 C
1-96	HPH2206A010A	HEAD R/P PR4-8FU C
1-97	MB314317	BELT CAPSTAN
1-98	MB314722	BELT COUNTER
1-99	MIB601782	FLYWHEEL (A) PART
1-100	MIB601783	FLYWHEEL (B) PART
1-101	MR328479	MOTOR PULLEY
1-102	MR328360	REEL MOTOR PULLEY
1-103	MV328322	MAIN CASE
1-104	MZ283140	SOCKET SELECTER X-17238 6P (U)
1-105	TCT2010D090A	PINCH ROLLER (L) BLK CS-M40R
1-106	TCT2010D100A	PINCH ROLLER (R) BLK CS-M40R

When ordering parts, please quote Parts Number, Description and Model Number.

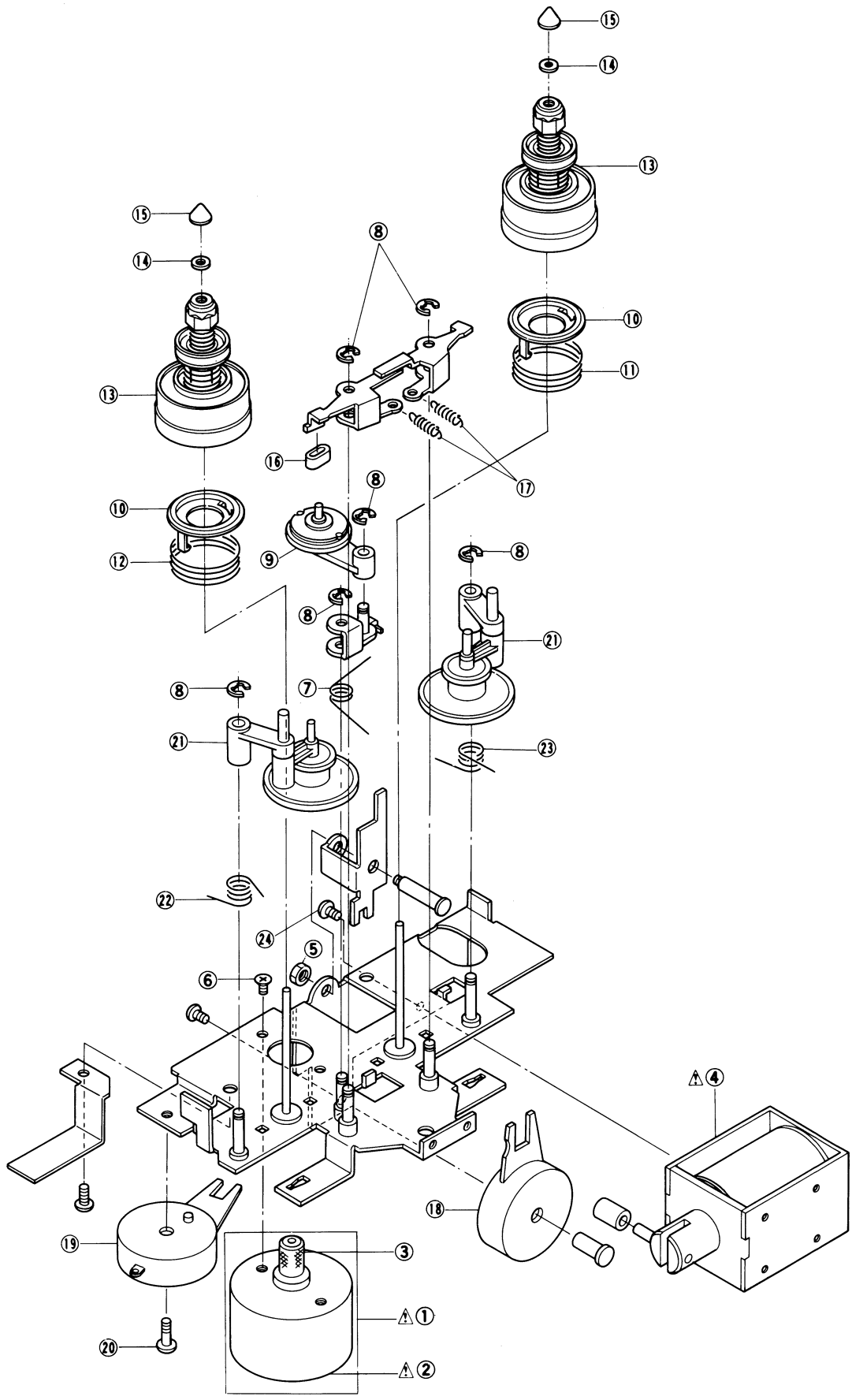
HEAD BASE BLOCK



2. HEAD BASE BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
2-1x	BHT2023A320A	HEAD BASE BLK GX-F66R
2-2	HPH2206A010A	HEAD R/P PR4-8FU C
2-3	ZS477876	PAN20x03STL CMT
2-4	ZS536488	BID20x08STL CMT
2-5	ZG402895	CS ANGLE ADJUST SPRING
2-6	ZS592378	PAN26x03STL CMT
2-7	HE325859	HEAD E HF213131 C
2-8	ZG313316	ERASE HEAD SPRING (A)
2-9	ZG313874	ERASE HEAD SPRING (B)
2-10	ZW273734	N20BRS NI3 1
2-11	ZS465298	PAN23x10STL CMT
2-12	ZG312925	SP T1-3.2/0.2-14.0 T1-042
2-13	HZ313313	TAPE GUIDE
2-14	ZG313314	ADJUST SPRING
2-15	BZT2010A070A	DETECTION TAPE GUIDE BLK CS-M40R
2-16	ZG312921	SP T1-3.2/0.2-9.0 T1-038
2-17	ZG313960	SP PUSH
2-18	ZW556828	PW32x100x050STL CMT
2-19	ZW270088	RING E 190SUP CMT
2-20	MV357208	BALL200STL
2-21	MH314340	HEAD HOLDER
2-22	ZS592378	PAN26x03STL CMT
2-23	ZG312946	SP T1-3.2/0.29-16.0 T1-062
2-24	ZW328682	PW31x070x050PBR
2-25	ZW270088	RING E 190SUP CMT

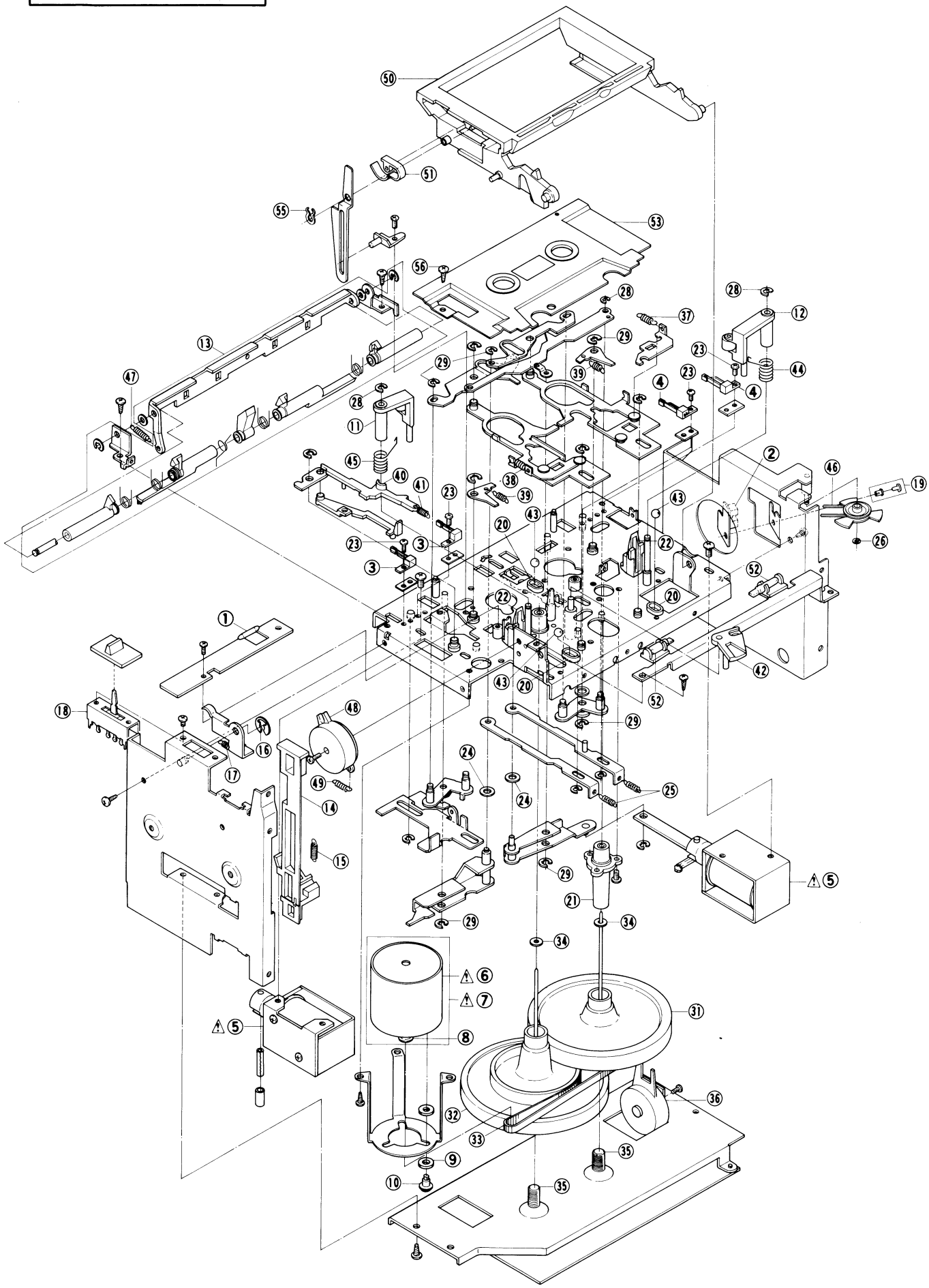
REEL TABLE BLOCK



3. REEL TABLE BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
3-1	BMT2016A320A	REEL MOTOR BLK (W/PULLEY) GX-F35
3-2	BM328441	MOTOR RF-510T (12620)
3-3	MR328360	REEL MOTOR PULLEY
	PLUNGER ASSY	
3-4	EP318645	SOLENOID 1240PLT 27V
	REEL TABLE BLOCK	
3-5	ZW516993	N30STL CMT 1
3-6	ZS430413	CTS26x04STL CMT
3-7	ZG314747	SP TORSION IDLER
3-8	ZW270088	RING E 190SUP CMT
3-9	BI312117	REW IDLER ASSY
3-10	TC328365	BT DRUM
3-11	ZG328366	BT SPRING
3-12	ZG330049	SP PUSH BACK TENSION
3-13	BR328424	TAKE-UP REEL TABLE ASSY
3-14	ZS330073	PW21x040x020
3-15	MT305793	REEL CAP
3-16	MB282104	BRAKE RUBBER
3-17	ZG321534	SP T2-3.2/0.29-12.5 T2-060
3-18	BZT2022A260A	DAMPER (C) ASSY CS-F33R
3-19	BZT2016A330A	DAMPER (B) ASSY GX-F35
3-20	ZS479474	PAN26x05STL CMT
3-21	BI312118	TAKE-UP IDLER ASSY
3-22	ZG314876	SP TORSION IDLER CLAMP (A)
3-23	ZG314749	SP TORSION IDLER CLAMP (B)
3-24	ZS417137	BID30x04STL CMT

MECHA FRAME BLOCK



4. MECHA FRAME BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
	LAMP P.C BOARD BLOCK	
4-1	EL317599	PL H LEAD 6.3V 100MA (IN 1)
	DETECTOR P.C BOARD BLOCK	
4-2	ET311977	PHOTO SENSOR SPI-201 (PH 1)
	SW LEAF BLOCK	
4-3	ES330521	SW LEAF BSW-47AB 01-1 NC (SW902, 904)
4-4	ES330522	SW LEAF BSW-47AC 01-1 NC (SW903, 905)
	PLUNGER ASSY	
4-5	EP318644	⚠ SOLENOID 1240PLT 27V (SL902, 903)
	MOTOR BLOCK	
4-6	BMT2022A080A	⚠ MOTOR (PULLEY) BLK CS-F33R
4-7	BM314843	⚠ MOTOR EG-510ED-2F
4-8	MR328479	MOTOR PULLEY
4-9	MB282778	RUBBER BUSH
4-10	ZS321338	MOTOR SCREW
	PINCH ROLLER (L) BLOCK	
4-11	TCT2010D090A	PINCH ROLLER (L) BLK CS-M40R
	PINCH ROLLER (R) BLOCK	
4-12	TCT2010D100A	PINCH ROLLER (R) BLK CS-M40R
	LEVER EJECT BLOCK	
4-13	BZT2023A310A	LEVER EJECT BLK GX-F66R
	CHASSIS (L) BLOCK	
4-14	ML314151	LEVER JOINT
4-15	ZG318204	SP T2-3.2/0.29-16 T2-062
4-16	ZW270101	RING E 300SUP CMT
4-17	ZG312944	SP T1-3.2/0.29-12.5 T1-060
	SW SLIDE BLOCK	
4-18	ES328416	SW SLIDE SSB02385 2-02-03S (SW901)
	MECHA FRAME BLOCK	
4-19	ZW312121	RV NYL26x042 BL
4-20	MS302191	BALL GUIDE
4-21	MV328322	MAIN CASE
4-22	TC314156	HOLDER CASSETTE
4-23	ZS464703	BID20x04STL CMT
4-24	ZW438928	PW31x048x020PBR
4-25	ZG312942	SP T1-3.2/0.29-10.0 T1-058
4-26	ZW321437	PUSH WASHER
4-27	ZW321718	PW31x080x050PSL
4-28	ZW270088	RING E 190SUP CMT
4-29	ZW270101	RING E 300SUP CMT
4-30	ZW649991	PW41x070x030PBR
4-31	MIB601782	FLYWHEEL (A) PART
4-32	MIB601783	FLYWHEEL (B) PART
4-33	MB314317	BELT CAPSTAN
4-34	ZW694798	PW31x070x020TFL
4-35	ZS302318	HOLD SCREW
4-36	BZT2016A330A	DAMPER (B) ASSY GX-F35
4-37	ZG318083	SP PULL CLAMP
4-38	ZG318083	SP PULL CLAMP
4-39	ZG310531	SP T1-4.0/0.4-12.5 T1-109
4-40	ML314337	LEVER EJECT CHECK
4-41	ZG312921	SP T1-3.2/0.2-9.0 T1-038
4-42	MR314339	CAM HEAD CHANGE
4-43	MV269965	BALL 400STL
4-44	ZG310694	PINCH ROLLER RETURN SPRING (A)
4-45	ZG310695	PINCH ROLLER RETURN SPRING (B)
4-46	MB314722	BELT COUNTER
4-47	ZG336064	SP PULL EJECT
4-48	BZT2021A200A	DAMPER (A) BLK CS-F330
4-49	ZG324329	SP T2-3.2/0.29-11.2 T2-059
4-50	TC328351	CASSETTE HOLDER (BL)
4-51	ZG321487	MOLD SPRING
4-52	EL309960	PL CORD 24.0V 50MA 450/450
4-53	SZB314713A	LID DECORATION PART
4-54x	SZB314713B	LID DECORATION (BL) PART
4-55	ZW332843	RING GRIP 380STL ACP
4-56	ZS432843	PAN26x04STL CMT

5. PRE AMP P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
5-1	BAT2023A130A	PC PRE AMP BLK GX-F66R (U) (U, J, C, A)
5-2	BAT2023A130B	PC PRE AMP BLK GX-F66R (E) (E, B, S, V)
5-IC1	EI312179	IC LM1111B
5-IC2	EI311959	IC HA12028
5-TR1	ET308954	TR 2SC1844 E, F
5-TR2	ET603257	TR 2SC1312S G, H
5-TR3	ET639437	TR 2SC945L Q, P
5-TR4, 5	ET328868	TR 2SD1012-V G, H
5-TR6	ET308954	TR 2SC1844 E, F
5-TR7	ET639437	TR 2SC945L Q, P
5-TR8, 9	ET554657	TR 2SA733A P, Q
5-TR10	ET639437	TR 2SC945L Q, P
5-TR12, 13	ET639437	TR 2SC945L Q, P
5-TR14	ET309353	⚠ TR 2SC2274 E, F
5-TR15, 16	ET639437	TR 2SC945L Q, P
5-TR17, 18	ET309353	⚠ TR 2SC2274 E, F
5-TR19 to 27	ET639437	TR 2SC945L Q, P
5-TR28	ET200506	TR 2SC2603 F
5-TR29	ET332245	TR 2SD794 P
5-TR30	ET639437	TR 2SC945L Q, P
5-TR31	ET328868	TR 2SD1012-V G, H
5-TR32, 33	ET639437	TR 2SC945L Q, P
5-TR34	ET539133	TR 2SA733A P
5-TR35	ET310920	⚠ TR 2SC1846 R, S
5-TR36 to 39	ET639437	TR 2SC945L Q, P
5-TR40	ET309353	⚠ TR 2SC2274 E, F
5-TR41	ET328868	TR 2SD1012-V G, H
5-TR42	ET639437	TR 2SC945L Q, P
5-TR43	ET200985	TR 2SC2603 F, G
5-D2	ED200469	D SILICON H DS448 FA5 F10
5-D3 to 7	ED560913	D SILICON V 1S2473VE
5-D8	ED305704	D ZENER H HZ4 B2
5-D9	ED200469	D SILICON H DS448 FA5 F10
5-D10 to 14	ED560913	D SILICON V 1S2473VE
5-D15	ED306109	D SILICON W03B 100/1.0A
5-D16	ED560913	D SILICON V 1S2473VE
5-D17	ED306014	D ZENER H HZ9 C3
5-D18, 19	ED562397	D GERMA H 1S188FM1
5-D20	ED560913	D SILICON V 1S2473VE
5-D21	ED331626	D ZENER H HZ3 B2
5-D22	ED560913	D SILICON V 1S2473VE
5-J1	EJ308986	PIN J 1784P1782 P 4P (U, J, C, A)
5-J1	EJ308985	JACK PLATE DIN, PIN JAC K 4P (E, B, S, V)
5-J2	EJ321328	PHONE J HLJ0345-010 2x3P
5-J3	EJ330545	PHONE J 3P HLJ0315-020 6.3
5-SW1	ES328415	SW SOLENOID SWE018401 18V 04-2S
5-SW2	ES311975	SW SOLENOID R8150050 27V 10-2W
5-SW3	ES283072	SW SLIDE SSC22LP 2-02-02N
5-VR1	EV315416	R S-FIX H D8 3P 103
5-VR2, 3	EV315413	R S-FIX H D8 3P 503
5-VR4	EV315414	R S-FIX H D8 3P 203
5-VR5	EV321635	R S-FIX H D8 3P 102
5-VR6	EV315412	R S-FIX H D8 3P 502
5-VR7	EV313538	VR ROTARY 16P20x1B B103
5-RL1	EP328529	RELAY LEAD LAB2NS 2NO 12V
5-VL1	EO321336	COIL VARI 1 FE002 10MH
5-L1	EO669273	COIL FIX 2 FL5R200 18UH
5-T1	EO331625	COIL OSC1 0365-034 100KHZ
5-FL1	ER328491	FILTER DB D07-003K 100KHZ
5-FL2	ER328490	FILTER DB D07-001K 19KHZ
5-FL3, 4	EO315758	COIL TUN 1 100S-431 100KHZ
5-VC1, 2	EC315346	C S-FIX H ECV-1ZW50x32E 5.0-55
5-R34	ER331627	⚠ R OMF H SNP FS 1W 910J
5-R35	ER323996	⚠ R OMF H SNP FS 1W 101J
5-C1	EC314990	C STY V SNP CQFS 101J 50DC
5-C3	EC314995	C STY V SNP CQFS 331J 50DC
5-C4	EC399565	C MC V FM 220J 500DC
5-C6	EC314995	C STY V SNP CQFS 331J 50DC
5-C30	EC380700	C MC V FM 250K 500DC
5-C35	EC331631	C STY V SNP CQFS 821J 50DC
5-C48	EC524777	C STY V 821J 500DC
5-C60	EC321340	C PP V APS 8201G 100DC
5-C63	EC314990	C STY V SNP CQFS 101J 50DC
5-C77	EC399565	C MC V FM 220J 500DC
5-C96	EC331183	C STY V SNP CQFS 102J 50DC

6. SYS. CON. P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
6-1	BAT2023A110A	PC SYSCON BLK GX-F66R
6-IC1	EI331657	IC MB8841-517M
6-IC2	EI331658	IC MB8841-461M
6-IC3, 4	EI331659	IC M54528P
6-IC5	EI319555	IC UPD4049C
6-IC6	EI331660	IC SN7417N
6-IC7	EI331661	IC SN7405N
6-TR1	ET324134	TR 2SA984K E, F
6-TR2	ET554657	TR 2SA733A P, Q
6-TR2	ET554657	TR 2SA733A P, Q
6-TR3 to 6	ET324134	TR 2SA984K E, F
6-TR7 to 9	ET554657	TR 2SA733A P, Q
6-TR13 to 37	ET554657	TR 2SA733A P, Q
6-TR39	ET554657	TR 2SA733A P, Q
6-TR40	ET200985	TR 2SC2603 F, G
6-D1 to 5	ED560913	D SILICON V 1S2473VE
6-D6	ED308952	D GERMA V 1K34A-LR F07
6-D7 to 10	ED560913	D SILICON V 1S2473VE
6-D11 to 14	ED308952	D GERMA V 1K34A-LR F07
6-D18, 19	ED560913	D SILICON V 1S2473VE
6-D20, 21	ED624903	D SILICON H 1S2473
6-X1	EI318384	OSC X'TAL NC-18C 3.579545MHZ
6-J1	EJ324276	DIN J TCS4680-01-111 P 8P
6-C6	EC363688	C MC V FM 101K 500DC
6-C7	EC285513	C MC V FM 220K 500DC

7. POWER SUPPLY P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
7-1	BAT2023A070A	PC POWER BLK GX-F66R (U)
7-2	BAT2023A070B	PC POWER BLK GX-F66R (J)
7-3	BAT2023A070C	PC POWER BLK GX-F66R (C)
7-4	BAT2023A070D	PC POWER BLK GX-F66R (A)
7-5	BAT2023A070E	PC POWER BLK GX-F66R (E)
7-6	BAT2023A070F	PC POWER BLK GX-F66R (B) (B, S)
7-7	BAT2023A070G	PC POWER BLK GX-F66R (V)
7-TR1	ET307349	⚠ TR 2SD794 P, Q
7-TR2	ET639437	⚠ TR 2SC945L Q, P
7-TR3	ET375603	⚠ TR 2SC1061 B, C
7-TR4	ET639437	⚠ TR 2SC945L Q, P
7-TR5	ET375603	⚠ TR 2SC1061 B, C
7-TR6	ET639437	⚠ TR 2SC945L Q, P
7-TR7	ET307349	⚠ TR 2SD794 P, Q
7-TR8	ET639437	⚠ TR 2SC945L Q, P
7-D1	ET319463	⚠ D SILICON 4B4B41 100/4.0A
7-D2	ED324013	D ZENER H HZ20 2
7-D3	ED319463	⚠ D SILICON 4B4B41 100/4.0A
7-D4	ED319167	D ZENER H HZ6 C3
7-D5	ED306109	⚠ D SILICON W03B 100/1.0A
7-D6	ED331667	D ZENER H HZ7 A1
7-J1	EJ310567	SOCKET INLET 0378PC-GS E 2P (B, S, V)
7-SW1	ES312234	⚠ SW PUSH SDL-1P 01-1 E (U, E, B, S, V)
7-SW1	ES312235	⚠ SW PUSH SDL-1P 01-1 J (J)
7-SW1	ES312238	⚠ SW PUSH SDL-1P 01-1 UC (C, A)
7-VS1	MZ283140	⚠ SOCKET SELECTER X-I7238 6P (U)
7-C1	EC320548	⚠ C CE V F 103Z 250AC (U, J, A)
7-C1	EC314688	⚠ C CE V FZ 103P 125AC (C)
7-C1	EC330307	⚠ C MMY V ECQUF 472M 250AC (E, S, B, V)
7-C2	EC324023	C EC V CUT USM 222M 35.0DC

8. DRIVE P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
8-1	BAT2023A300A	PC DRIVE BLK GX-F66R
8-IC1	EI302681	IC SN7404N
8-IC2	EI201940	IC NJM4558S
8-TR1	ET307349	⚠ TR 2SD794 P, Q
8-TR2	ET324134	⚠ TR 2SA984K E, F
8-TR3, 4	ET200985	TR 2SC2603 F, G
8-TR5	ET309353	TR 2SC2274 E, F
8-TR6	ET307349	⚠ TR 2SD794 P, Q
8-TR7	ET324134	⚠ TR 2SA984K E, F
8-TR8, 9	ET200985	TR 2SC2603 F, G
8-TR10	ET309353	TR 2SC2274 E, F
8-TR11	ET324134	⚠ TR 2SA984K E, F
8-TR12, 13	ET200985	TR 2SC2603 F, G
8-TR14	ET309353	TR 2SC2274 E, F
8-TR15	ET328868	TR 2SD1012-V G, H
8-TR16, 17	ET328438	TR 2SB808-V F, G
8-TR18	ET328868	TR 2SD1012-V G, H
8-TR19	ET200985	⚠ TR 2SC2603 F, G
8-TR20 to 26	ET200985	TR 2SC2603 F, G
8-TR28 to 33	ET200985	TR 2SC2603 F, G
8-TR36	ET328868	TR 2SD1012-V G, H
8-TR37	ET200985	TR 2SC2603 F, G
8-D1	ED328486	D ZENER H HZ15 3
8-D2	ED560913	D SILICON V 1S2473VE
8-D3, 4	ED306109	D SILICON W03B 100/1.0A
8-D5	ED560913	D SILICON V 1S2473VE
8-D6, 7	ED306109	D SILICON W03B 100/1.0A
8-D8	ED560913	D SILICON V 1S2473VE
8-D9 to 11	ED306109	D SILICON W03B 100/1.0A
8-D12 to 17	ED560913	D SILICON V 1S2473VE
8-D18	ED306109	D SILICON W03B 100/1.0A
8-D19	ED316143	D SILICON H 1S2473HS F10
8-D20	ED560913	D SILICON V 1S2473VE
8-VR1	EV257523	R S-FIX V V8K1-1 3P 504
8-C14	EC314992	C STY V F05 CQF09 681J 50DC
8-C19	EC307793	C EC V F05 NP SM 220M 10DC

9. REC CANCEL P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
9-1	BAT2023A440A	PC REC CANCEL BLK GX-F66R
9-TR1 to 4	ET200985	TR 2SC2603 F, G
9-TR5 to 7	ET200596	TR2SC2603 E
9-D1 to 7	ED560913	D SILICON V 1S2473VE

10. KEY BOARD P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
10-1	BAT2023A160A	PC KEY BOARD BLK GX-F66R
10-D1T03	ED308953	D GERMA H 1K34A-LH SNP
10-D5	ED316143	D SILICON H 1S2473HS F10
10-D6, 7	ED560913	D SILICON V 1S2473VE
10-IN1	EM331669	IND LE SL-1003 CHARACTER
10-SW1, 2	ES324677	SW TACT KEC11904
10-SW3 to 18	ES323367	SW TACT KEC10001
10-SW20 to 24	ES323367	SW TACT KEC10001
10-SW1	ES201527	SW SLIDE SSS212 1-01-02N

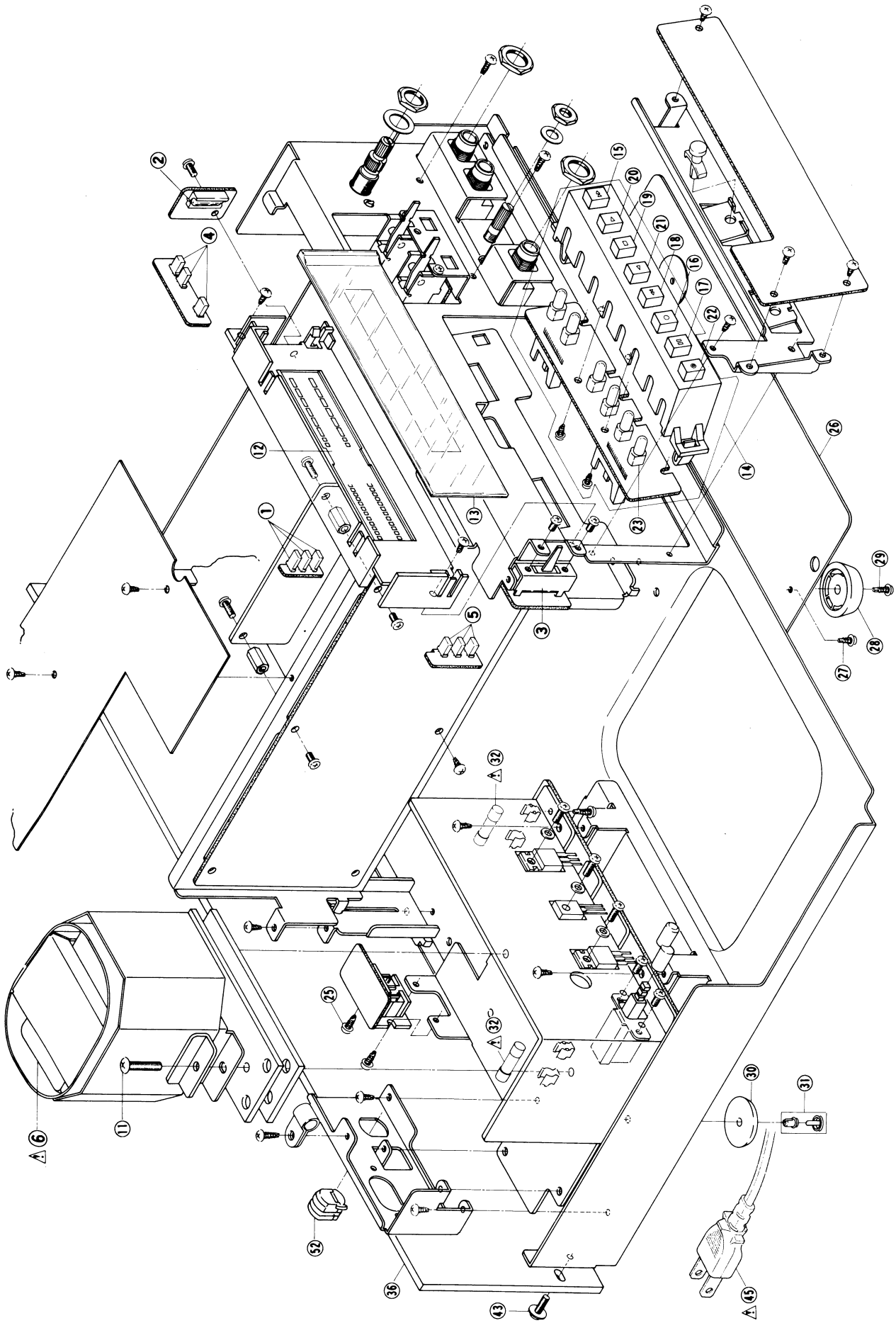
11. LD P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
11-1	BAT2023A450A	PC LD BLK GX-F66R
11-TR1, 2	ET200985	TR 2SC2603 F, G
11-TR3	ET200558	TR 2SA1115 E, F

12. VR P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
12-TR1, 2	ET-554657	TR 2SA733A P, Q
12-SW1	ES321274	SW LEVER 63349 2-06-03S
12-SW2	ES331675	SW LEVER 00620388 2-06-02N
12-VR1	EV202110	VR ROTARY 16P11×0S A503 A503
12-VR2	EV315414	R S-FIX H D8 3P 203
12-VR3	EV315414	R S-FIX H D8 3P 203

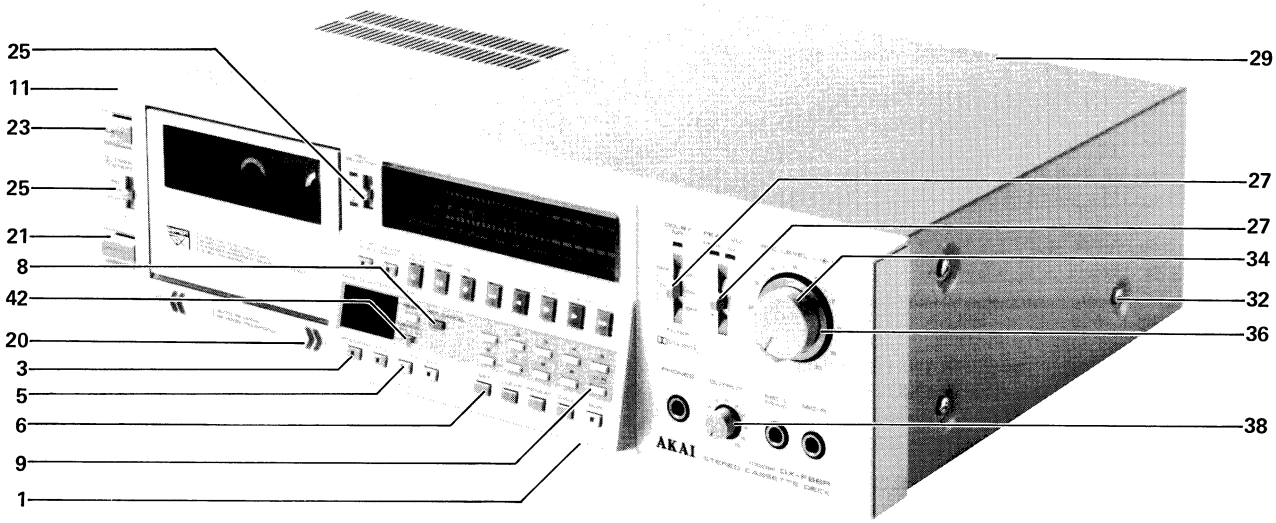
ASSEMBLY BLOCK



13. ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
		TAPE LED P.C BOARD BLOCK
13-1	ED322773	D LED SLP-255D-01 GRN (D1, 2, 3)
		LAMP METER P.C BOARD BLOCK
13-2	EL304025	PL H LEAD 10V 110MA (IN1)
		SLIDE P,C BOARD BLOCK
13-3	ES331260	SW SLIDE SSB423 2-02-03N (SW1)
		DOLBY LED P.C BOARD BLOCK
13-4	ED322773	D LED SLP-255D-01 GRN (D1, 2, 3)
		REVERSE P,C BOARD BLOCK
13-5	ED322773	D LED SLP-255D-01 GRN (D1, 2, 3)
		POWER SUPPLY BLOCK
13-6	BT331662	⚠ TRANS POWER T2023-U
13-7x	BT331663	⚠ TRANS POWER T2023-J
13-8x	BT331665	⚠ TRANS POWER T2023-C, A, V (C, A, V)
13-9x	BT331664	⚠ TRANS POWER T2023-E
13-10x	BT331666	⚠ TRANS POWER T2023-B, S
13-11	ZS312115	ST BID40×18STL CMT
		ASSEMBLY BLOCK
13-12	ED331263	IND LE LT-1016 GRAPH
13-13	SZ331956	MASK METER
13-14	ES331670	SW OPERATION F66R 8P L
13-15	SK780000	KNOB OPERATION (FF)
13-16	SK780001	KNOB OPERATION (REC)
13-17	SK780002	KNOB OPERATION (PAUSE)
13-18	SK780004	KNOB OPERATION (REW)
13-19	SK780005	KNOB OPERATION (STOP)
13-20	SK780006	KNOB OPERATION (PLAY)
13-21	SK780007	KNOB OPERATION (REVERSE)
13-22	SK780008	KNOB OPERATION (REC MUTE)
13-23	EL300186	PL LEAD 8V 60MA
13-24x	TC780009	RUBBER SHEET SW ASSIST J-P5348-03
13-25	ZS463353	T2BR30×08STL BNI
13-26	SP331961	COVER BOTTOM PLATE
13-27	ZS325495	T2BR30×06STL CMT
13-28	SA202118	FOOT
13-29	ZS490228	T2BID30×08STL CMT
13-30	SA313811	RUBBER FOOT
13-31	ZW231030	RV NYL30×045 BL
13-32	EF306950	⚠ FUSE TSC A 250V 2A (F1, 2) (U, J)
13-33x	EF306954	⚠ FUSE TSC 125V 2A (F1, 2) (C, A)
13-34x	EF601301	⚠ FUSE SEMKO T 250V 2A (F1, 2) (E, B, S, V)
13-35x	EF593706	⚠ FUSE SEMKO T 250V 0.50A (F3) (S, V)
13-36	SP332004B	PANEL REAR BOARD GX-F66R (U)
13-37x	SP332004F	PANEL REAR BOARD GX-F66R (J)
13-38x	SP332004D	PANEL REAR BOARD GX-F66R (C)
13-39x	SP332004E	PANEL REAR BOARD GX-F66R (A)
13-40x	SP332004C	PANEL REAR BOARD GX-F66R (E)
13-41x	SP332004A	PANEL REAR BOARD GX-F66R (B, S)
13-42x	SP332004G	PANEL REAR BOARD GX-F66R (V)
13-43	ZS332007	T2PAN30×10STL CMT C080
13-44x	ZW305013	RV POP32 (A)
13-45	EW306428	⚠ AC CORD 2 CORES KP-205A, VFF UCJ (U)
13-46x	EW306427	⚠ AC CORD 2 CORES KP-211, VFF J (J)
13-47x	EW305691	⚠ AC CORD 2 CORES KP-8, SPT-1 UC (C, A)
13-48x	EW201796	⚠ AC CORD 2 CORES KP-419C, LTCE-2F E (E)
13-49x	EW322400	⚠ AC CORD 2 CORES GTBS-2F/ KS-15 B (B)
13-50x	EW322401	⚠ AC CORD 2 CORES KP-560/S-15S (S)
13-51x	EW315767	⚠ AC CORD 2 CORES KP-419C/ KS-15 E (V)
13-52	SZ631945	STRAIN RELIEF SR-4N-4 (U, J, C, A, E)

FINAL ASSEMBLY BLOCK



14. FINAL ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
	SUB PANEL BLOCK	
14-1	BDT2023A030A	PANEL SUB BLK GX-F66R
14-2x	BDT2023A030B	PANEL SUB BLK GX-F66R-BL
14-3	SK331981A	KNOB PUSH (A)
14-4x	SK331981B	KNOB PUSH (A)-BL
14-5	SK331982	KNOB INDICATOR
14-6	SK331983A	KNOB PUSH (B)
14-7x	SK331983B	KNOB PUSH (B)-BL
14-8	SK331984A	KNOB PUSH (C)-RED
14-9	SK331984C	KNOB PUSH (C)-GRAY
14-10x	SK331984B	KNOB PUSH (C)-BL
	FRONT PANEL BLOCK	
14-11	BDB331974C	PANEL FRONT GX-F66R (MONO) PART (U, J, C, A)
14-12x	BDB331974A	PANEL FRONT GX-F66R PART (E, B, S, V)
14-13x	BDB331974D	PANEL FRONT GX-F66R (MONO)-BL PART (U, J, C, A)
14-14x	BDB331974B	PANEL FRONT GX-F66R-BL PART (E, B, S, V)
14-15x	TC331975A	LID ESCUTCHEON
14-16x	TC331975B	LID ESCUTCHEON (BL)
14-17x	SE331976A	ESCUTCHEON SIDE
14-18x	SE331976B	ESCUTCHEON SIDE (BL)
14-19x	ZS331533	PT PAN30x08STL CMT
14-20	SZ325789	DIRECTION LENS
14-21	SK317468A	KNOB PUSH (A)
14-22x	SK317468B	KNOB PUSH (A)-BL
14-23	SK317468C	KNOB PUSH (B)
14-24x	SK317468D	KNOB PUSH (B)-BL

REF. NO.	PARTS NO.	DESCRIPTION
	FINAL ASSEMBLY BLOCK	
14-25	SK328391	SLIDE KNOB
14-26x	SK328392	SLIDE KNOB (BL)
14-27	SK329033	LEVER KNOB (A)
14-28x	SK329034	LEVER KNOB (BL)
14-29	SP332003A	COVER UPPER (A)
14-30x	SP332003B	COVER UPPER (A)-BL
14-31x	SP332003C	COVER UPPER (B)
14-32	ZS315878	XST BID40x08STL NI3
14-33x	ZS310588	XST BID 40x08STL BNI
14-34x	SKB318794	KNOB DOUBLE (UPPER) PART GX-F90
14-35x	SKB318795	KNOB DOUBLE (UPPER-BL) PART
14-36	SK331998A	KNOB DOUBLE (LOWER)
14-37x	SK331998B	KNOB DOUBLE (LOWER)-BL
14-38	SK317537	KNOB (B)
14-39x	SK317538	KNOB (B-BL)
14-40	BDB332000A	LID PANEL PART
14-41x	BDB332000B	LID PANEL (BL) PART
14-42	SK331985A	KNOB MEMORY
14-43x	SK331985B	KNOB MEMORY (BL)
14-44x	BC330054	CASE WOOD GX-F66R-W
14-45x	SA202118	FOOT GX F66R-W
14-46x	ZW326042	PW35x070x050STL CMT GX-F66R-W
14-47x	ZS414268	T1TRS35x10STL CMT GX-F66R-W
14-48x	ZW381881	PW41x130x100STL CMT GX-F66R-W
14-49x	ZS330057	ST BID40x22STL CMT GX-F66R-W

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Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
BAT2023A070A	7-1	ED322773	13-5	ET200558	11-TR3	EW322400	13-49x
BAT2023A070B	7-2	ED322773	13-4	ET200596	9-TR5 to 7	EW322401	13-50x
BAT2023A070C	7-3	ED322773	13-1	ET200985	5-TR43	EW325859	2-7
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BAT2023A070E	7-5	ED328486	8-D1	ET200985	8-TR37	HZ313313	2-13
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BAT2023A110A	6-1	ED331667	7-D6	ET200985	8-TR12, 13	MB314317	4-33
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Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
TC32865	3-10						
TC331975A	14-15x						
TC331975B	14-16x						
TC780009	13-24x						
ZG310531	4-39						
ZG310694	4-44						
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ZG314876	3-22						
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ZG318083	4-38						
ZG318204	4-15						
ZG321487	4-51						
ZG321534	3-17						
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ZG330049	3-12						
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ZS302318	4-35						
ZS310588	14-33x						
ZS312115	13-11						
ZS315878	14-32						
ZS321338	4-10						
ZS325495	13-27						
ZS330057	14-49x						
ZS330073	3-14						
ZS331533	14-19x						
ZS332007	13-43						
ZS414268	14-47x						
ZS417137	3-24						
ZS430413	3-6						
ZS432843	4-56						
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ZW270088	4-28						
ZW270101	4-16						
ZW270101	4-29						
ZW273734	2-10						
ZW305013	13-44x						
ZW312121	4-19						
ZW321437	4-26						
ZW321718	4-27						
ZW326042	14-46x						
ZW328682	2-24						
ZW332843	4-55						
ZW381881	14-48x						
ZW438928	4-24						
ZW516993	3-5						
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SECTION 3

SCHEMATIC DIAGRAM

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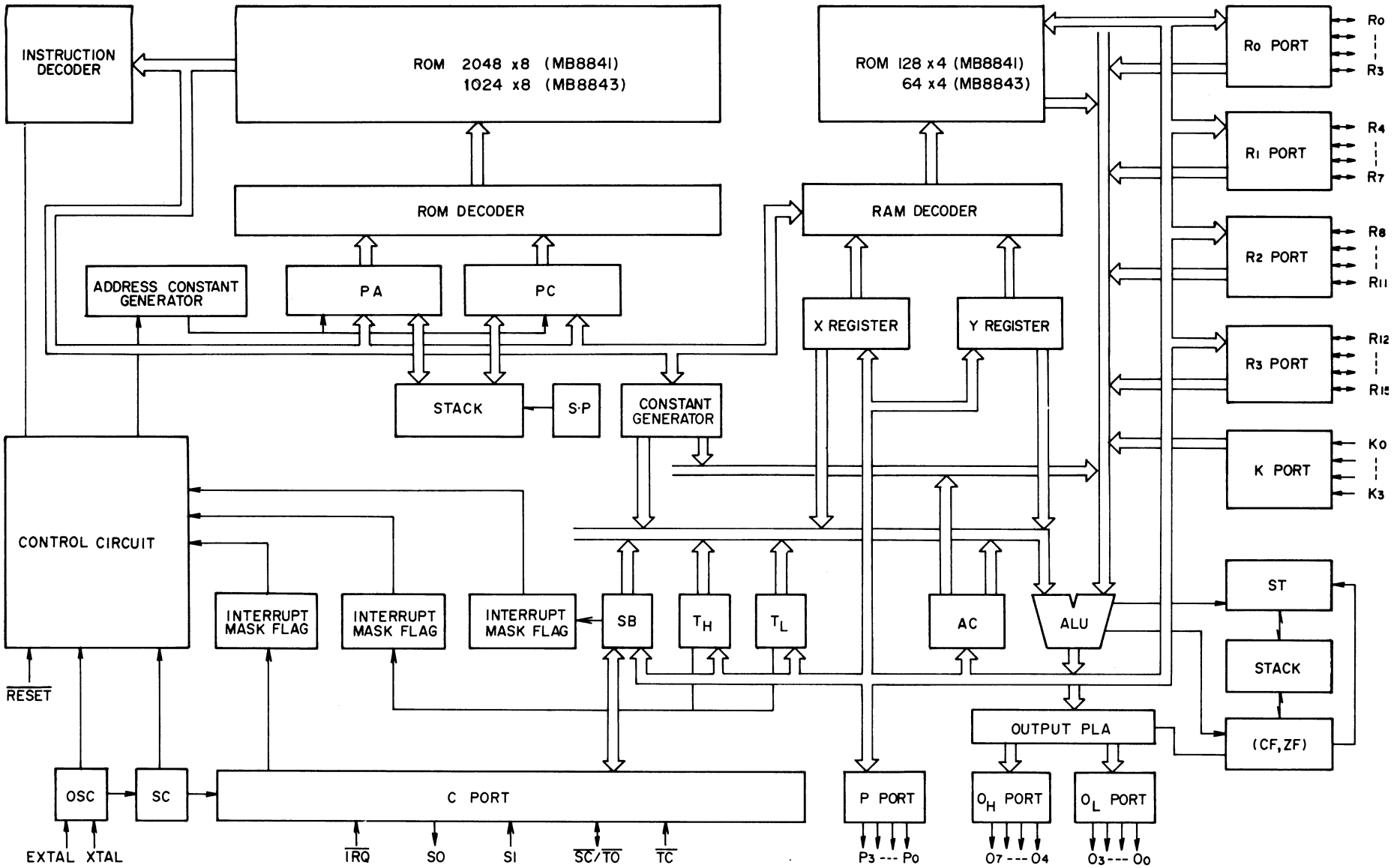
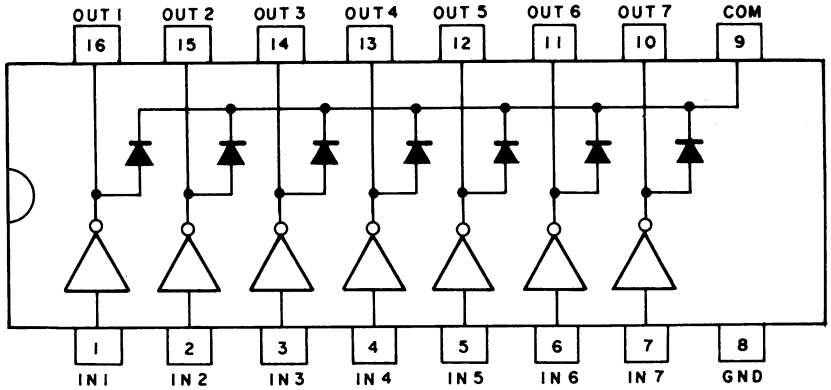
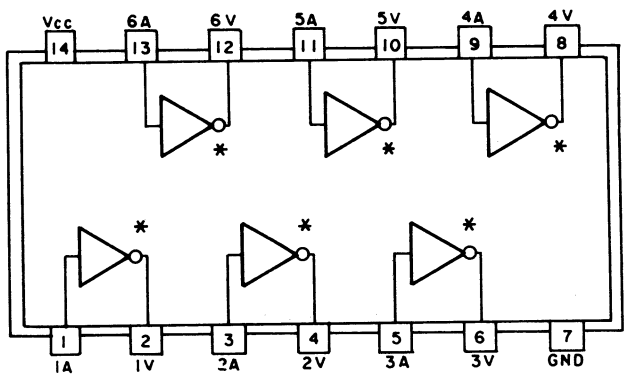

INSTRUCTION DECODER
ROM 2048 x8 (MB8841)
1024 x8 (MB8843)
ROM 128 x4 (MB8841)
64 x4 (MB8843)
R0 PORT
R1 PORT
R2 PORT
R3 PORT
K PORT
R0
R3
R4
R7
R8
R11
R12
R15
K0
K3
ROM DECODER
RAM DECODER
ADDRESS CONSTANT GENERATOR
PA
PC
X REGISTER
Y REGISTER
STACK
S·P
CONSTANT GENERATOR
CONTROL CIRCUIT
INTERRUPT MASK FLAG
INTERRUPT MASK FLAG
INTERRUPT MASK FLAG
SB
TH
TL
AC
ALU
ST
STACK
(CF,ZF)
OUTPUT PLA
RESET
OSC
SC
C PORT
P PORT
OH PORT
OL PORT
EXTAL
XTAL
IRQ
SO
SI
SC/TO
TC
P3 --- P0
O7 --- O4
O3 --- O0

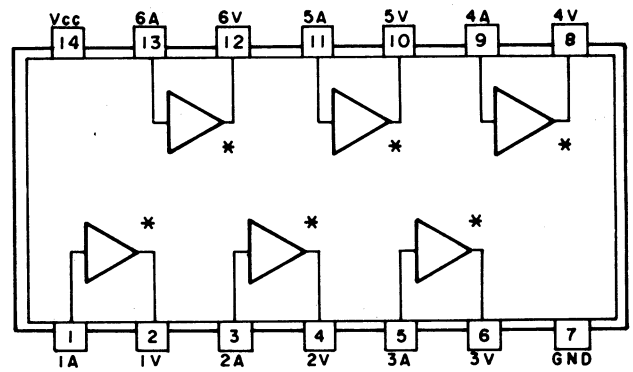
M54528P



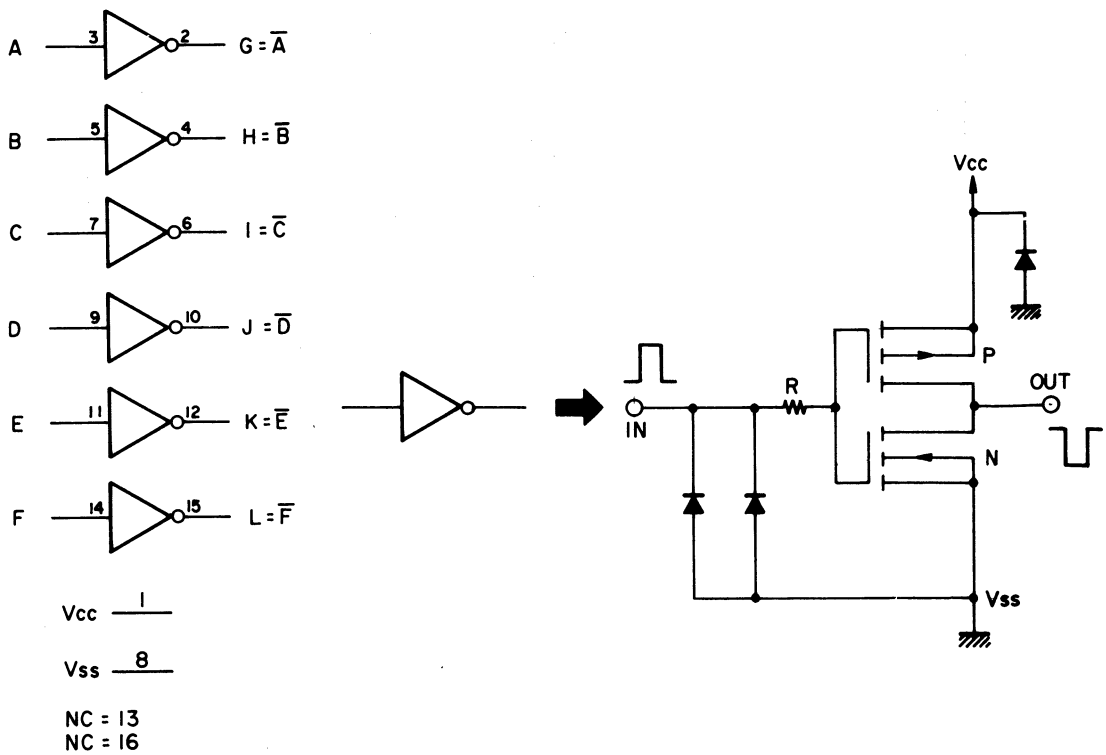
SN7405



SN7417N



μPD4049C



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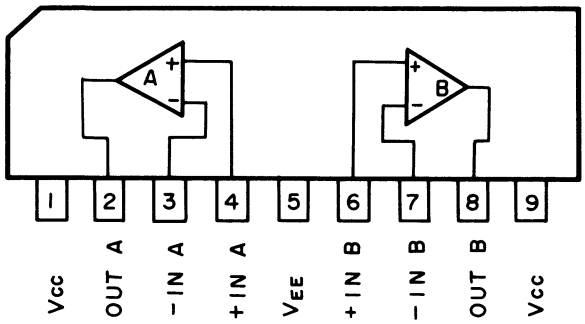
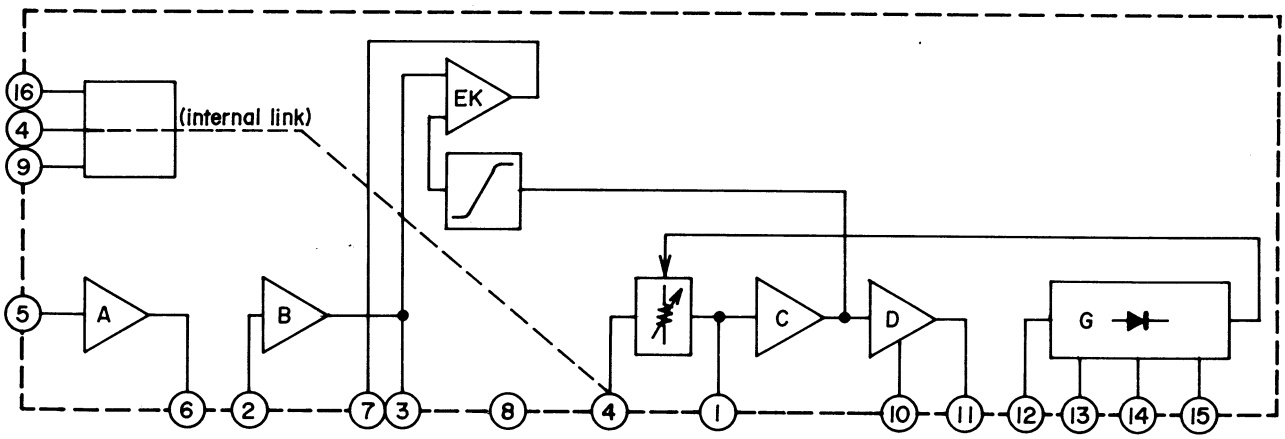


LM1111B



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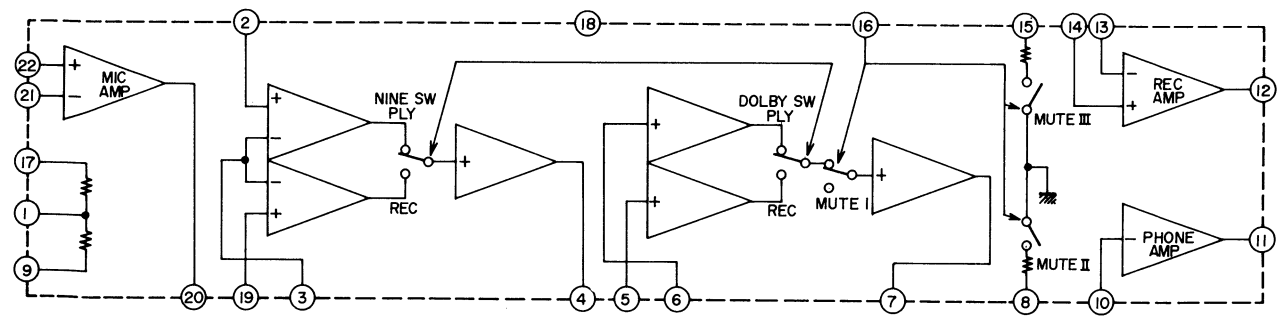
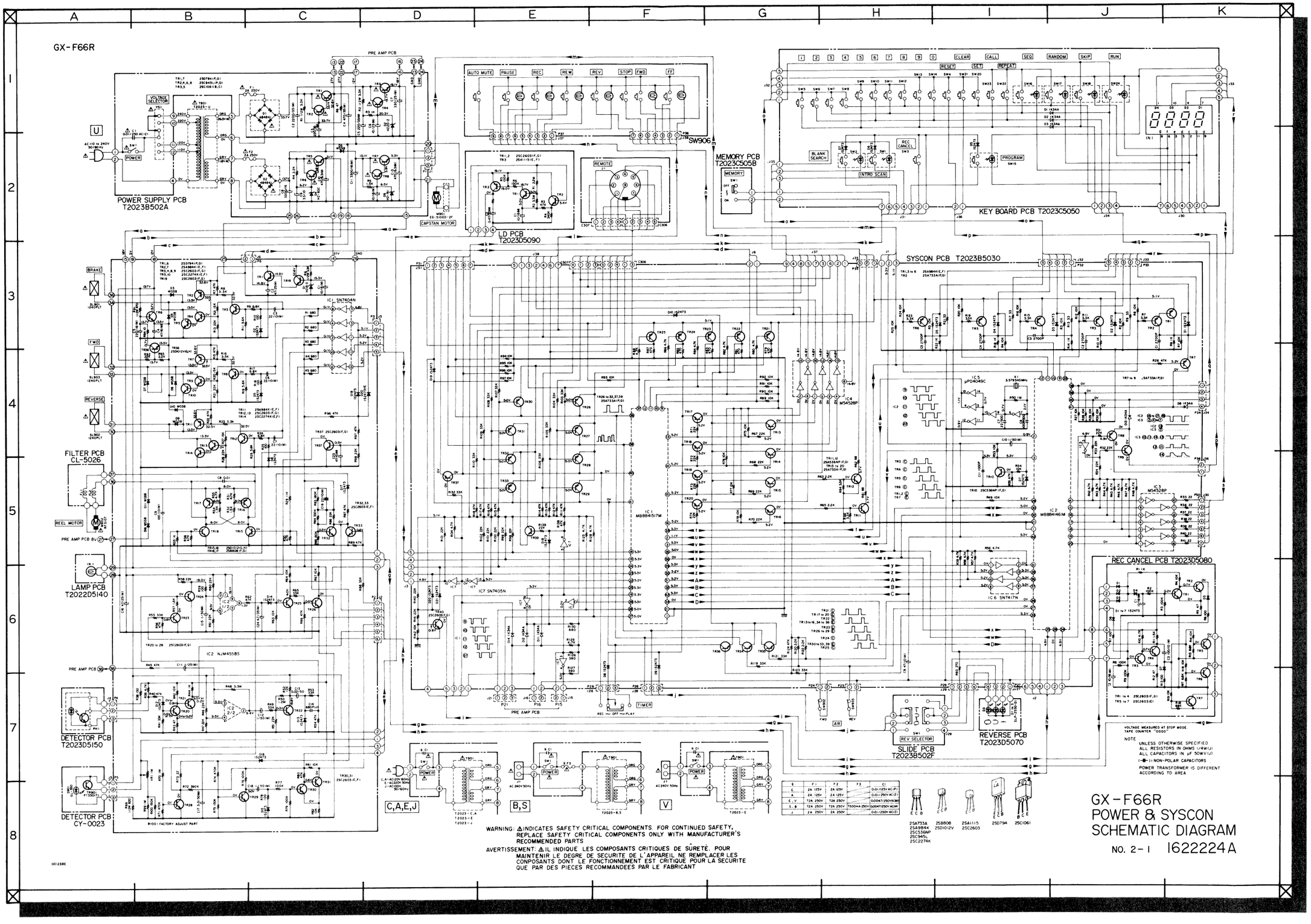


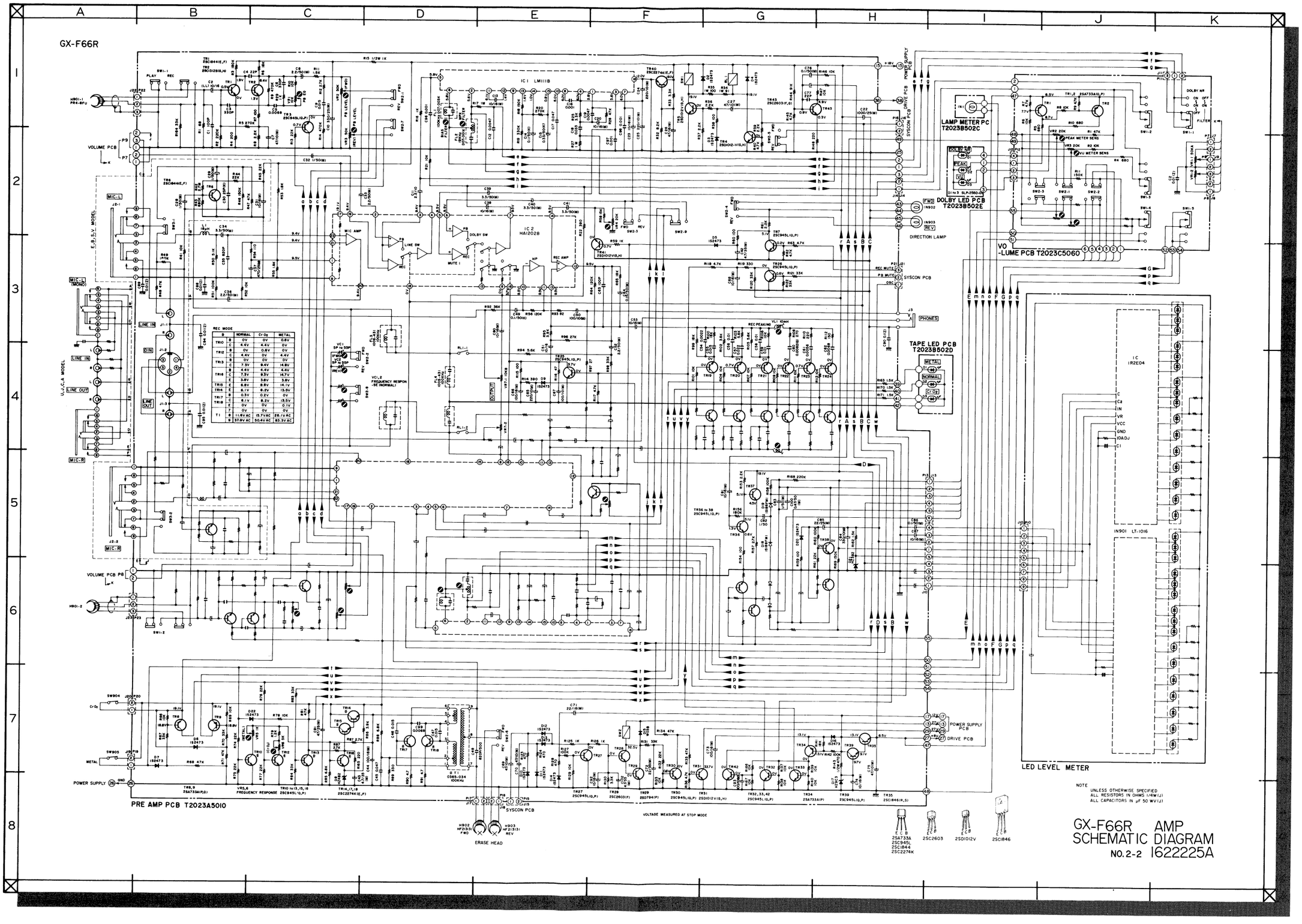
GX-F66R



GX-F66R POWER & SYSCON SCHEMATIC DIAGRAM

NO. 2-1 1622224A

GX-F66R


PRE AMP PCB T2023A5010
SYSCON PCB
DRIVE PCB
POWER SUPPLY PCB
LAMP METER PC T2023B502C
DOLBY LED PCB T2023B502E
TAPE LED PCB T2023B502D
VOLUME PCB
VOLUME PCB P8
E,B,S,V MODEL
U,J,C,A MODEL
MIC-L
MIC-R
LINE IN
LINE OUT
DIN
PHONES
DIRECTION LAMP
REC MUTE
P.B MUTE
OSC
POWER SUPPLY
METAL
NORMAL
Cr O2
ERASE HEAD
IC IR2E04
IN901 LT-1016
LED LEVEL METER
VOLTAGE MEASURED AT STOP MODE
IC1 LM1118
IC2 HA12028
REC MODE
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN µF 50 WV (J)
GX-F66R AMP
SCHEMATIC DIAGRAM
NO. 2-2 1622225A